Sowing the Seeds of a Global Movement

Stories from California Trailblazers of Open Education

Barbara Illowsky, Ph.D.

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I
Introduction

Sowing the Seeds of a Global Movement: Stories from California Trailblazers of Open Education is a collection of insightful interviews conducted by Dr. Barbara Illowsky, herself a pioneering figure in the Open Education movement and thus also a subject of one of the interviews, which I had the honor of conducting. This volume delves into the origins, evolution, and future impact of Open Education through the perspectives of key leaders based in California who helped sow the seeds of a global movement that has now grown into a mature field that supports college and university student success worldwide.

The interviews feature conversations with Dr. Cathy Casserly, Ms. Una Daly, Mr. James Glapa-Grossklag, Dr. Gerry Hanley, Dr. Barbara Illowsky, Dr. Martha Kanter, Dr. Gary Michelson, Dr. Lisa Petrides, and Mr. Hal Plotkin. These individuals share their unique journeys and contributions to making education more accessible and affordable in the U.S. and worldwide. From the early philosophical underpinnings of open knowledge to the practical implementation of Zero Textbook Cost (ZTC) programs in California, their stories highlight the dedication, collaboration, and vision that have propelled the Open Education movement forward.

Readers will gain a deeper understanding of the multifaceted challenges and remarkable successes encountered in advocating for Open Education and integrating OER into higher education. This volume highlights the critical role played by philanthropic organizations, particularly Michelson 20MM Foundation and The William and Flora Hewlett Foundation, in providing essential funding and strategic direction in the early days of the movement and beyond. It also explores the complex but crucial development of intellectual property frameworks, such as Creative Commons licenses, which provide the necessary infrastructure for content creators to share, use, and reuse educational materials freely and ethically.

Furthermore, the interviews shed light on the ongoing efforts to ensure equitable educational opportunities for all students, with a particular emphasis on community colleges and underserved communities, where the impact of textbook costs can be most detrimental. The personal anecdotes shared by these trailblazers underscore the transformative power of OER in reducing financial barriers to education, thereby fostering greater student success, persistence, and timely graduation. The discussions reveal how Open Education not only addresses affordability but also promotes innovative pedagogical practices, empowering both educators and learners to become

active participants in the creation and dissemination of knowledge.

Sowing the Seeds of a Global Movement: Stories from California Trailblazers of Open Education serves as more than just a historical account; it is a testament to the power of collective action, sustained advocacy, and the enduring belief that knowledge is a public good that should be freely accessible to all. It offers invaluable insights for educators, policymakers, philanthropists, and students alike, providing a comprehensive overview of how Open Education has evolved and a compelling vision for its future. The volume celebrates the collaborative spirit that defines the OER community and its relentless pursuit of a more open, equitable, and accessible educational landscape.

Judith Sebesta, Ph.D.

II

Acknowledgements and Attribution

The interviews in this volume, with one exception,* were conducted by Dr. Barbara Illowsky, who is herself a trailblazer of Open Education. She is co-author of groundbreaking statistics textbooks published by OpenStax, the first of which is considered the first open, accessible textbook in the U.S. She has served on the international Board of Directors for the OpenEducation Consortium (now Open Education Global). Dr. Illowsky was a mathematics and statistics professor at De Anza College in California from 1989 until her retirement in 2019. She is a past president of several organizations, including the California Mathematics Council, Community Colleges. She has been on loan to many projects, including the California Community Colleges Chancellor's Office and the CCC Online Education Initiative as its Chief Academic Affairs Officer. Dr. Illowsky was the inaugural OER and Innovation Fellow for the Michelson 20MM Foundation. She spends her days advocating for and promoting adoption of OER/ZTC and mentoring colleges on their paths to reducing textbook costs for students and increasing success in mathematics programs.

*The interview of Dr. Illowsky was conducted by Judith Sebesta.

We would like to thank the interviewees for the generous contribution of their time, insights, and wisdom to this volume.

This collection was created through the vision of James Glapa-Grossklag of College of the Canyons, which serves as the Technical Assistance Provider for the California Community Colleges Chancellor's Office Zero Textbook Cost Degree Grant Program.

Cover image design by Helen Graves and Judith Sebesta using Canva and Google Gemini.

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Image description: Headshot of Dr. Barbara Illowsky, smiling, sitting on a bench in front of a window.

Cover Image Description: Outline of the state of California surrounded by garden and book imagery with headshots of interviewees arranged in a circle around the state.

AI was not used in any aspect of the creation or editing of this volume except for

assistance designing the cover image.

Media Attributions

- Barbara Illowsky

Media Attributions

- Barbara Illowsky

III

The Interviews

1

Cathy Casserly

Dr. Cathy Casserly is one of the premier innovators and international leaders of the Open Educational Resources (OER) movement. It is our privilege to learn more about her involvement and insight into the movement's history and future. Without her leadership, work, and insight at The William and Flora Hewlett Foundation, it is safe to say that the OER movement would not have ballooned and prospered at the fantastic rate it has.

In 2001, you were recruited by Dr. Marshall (Mike) Smith, then at The William and Flora Hewlett Foundation, "to develop program[s] at the nexus of learning and technology." Please explain your efforts that led to the development of OER.

In 2001, the time before smartphones, iPads, and LinkedIn, we were all riding the internet boom and predicting all the opportunities it would afford, particularly for learners furthest from opportunity. At the Hewlett Foundation, we knew technology and innovation would be a terrific fit since this is how Bill Hewlett made his fortune. We explored multiple funding strategies, trying to sort where Hewlett could use its unique position in the education ecosystem. Initially, we considered middle school algebra, a critical gateway course, as an area of focus, and made a fairly large investment to develop an efficacy study since few rigorous studies then existed exploring the impact of technology on student learning. But we soon realized that the pace of technological change was so rapid, that by the time the research would be completed five years later, the learning technology would be outdated.

So we wondered what could be the golden idea that would anchor the portfolio of investments? It turned out that three core ideas solidified to inspire us. The first was the open source software movement with its attributes of high quality, no vendor lock-in, simple licensing structures, and norms for sharing. Could there be something similar for education? Second, we were influenced by Indian economist and philosopher Amartya Sen, whose Nobel Prize-winning work focused on "positive freedoms" to expand people's opportunities through the removal of "unfreedoms": poverty, limited economic opportunity, inadequate education, and access to knowledge. These are the values we wanted to design and build a new initiative upon.

And third, MIT, like many higher education institutions at the time, was also exploring how it could uniquely contribute to the internet boom and had engaged a

consulting firm to cull ideas. After a year of circular faculty discussions, a professor finally suggested, "Why don't we just give it away?" MIT President Vest approached the Hewlett and Mellon Foundations for support, and with this partnership, MIT OpenCourseWare was born. The worldwide enthusiasm for the launch was resounding, and with this initial grant commitment, we knew we had found the anchor for a new program.

From the start, we wanted to design the new program as an international effort and encourage multi-directional sharing. We wanted to base it on Sen's values and remove "unfreedoms" for optimal impact. Like open source software, we wanted to give the community voice and ownership. In fact, it was at a UNESCO-hosted meeting in Paris in the summer of 2002 that participants from countries across the globe coined the term OER. Finding the golden strategic nugget was really about coming back to the simple and powerful idea that knowledge is a public good, and that content and tools for teaching, learning, and research for education purposes could be shared, used, and reused by everyone.

Hewlett Foundation's definition of OER is the most widely accepted version. How did the definition come about? And how did it become the lead definition?

As we began to build out the portfolio of investments we realized that while we had an internal working definition of OER, the broader education community had varying interpretations. The community was asking for a common definition and we realized we needed to be more intentional about building a shared identity to create a standard for the emerging field. Hewlett engaged a communications firm to help facilitate the discussion among the community and build consensus around the text for the definition of OER. We know shared language is one of the foundational elements needed to build alignment in a new field so ideas can be readily understood and spread.

While at Hewlett, you traveled the globe and managed a portfolio of over 60 grantees, many of which involved OER. How did you choose those grantees and how did those grantee programs contribute back to the OER community?

Once the strategic aim for OER was solidified, all of the first 60 grantees were involved in some version of OER. We developed a theory of change to frame our vision and began by investing in projects that were either creating some form of OER, like courseware and teaching resources, or building the infrastructure needed to support the ecosystem like Creative Commons and the OER Commons at ISKME, and early research from organizations such as OECD.

At the time we were seeking to understand what OER assets would be beneficial

for whom under what context. We engaged leaders who could articulate a clear vision for the future with OER, and sought out organizations with networks that could internalize and disseminate the vision. Those networks became critical for rapidly diffusing the idea of OER around the globe, particularly Open University UK, the Commonwealth of Learning and

"Building a field is a long game."

UNESCO. The seeds for UNESCO's powerful recommendation adopted by its General Assembly in 2019 were planted from the first year of Hewlett's OER investments. Building a field is a long game.

At the same time, we listened carefully to the community as projects launched, paid attention to demand, and stayed agile and funded new organizations where there was a gap. One terrific example is the Community College Consortium for OER where you, Barbara, played an early leadership role, and other organizations are Open Education Global and OER Africa. All were added to the portfolio to serve higher education institutions wanting to replicate OER. These organizations and networks became powerful hubs and communities to lead the work, closer to educational practices, in the then nascent field.

Without a doubt, all grantees share back to the community. It is the ethos of the open community to do so, and do so naturally. Grantees meet in person and virtually to share stories of success, and failure, and to collaboratively engage in problem solving.

At the philanthropic level it was a balancing act as we supported individual organizations to succeed while simultaneously holding a larger vision to free education and knowledge as a public good. If a movement is successful, things change for everyone.

Hewlett was among the first and the largest grantors of Connexions and later OpenStax at Rice University. How did those grants help to shape the OER movement?

Professor Rich Baraniuk, the founder of OpenStax, came through the Hewlett door when we were consolidating our vision. After a one hour meeting we knew his idea for Connexions would be a fit with our nascent strategy. It was the right meeting at the right time with the right people that sometimes just happens. Synchronicity and preparation meets opportunity meets timing.

In its first phase OpenStax pioneered a model of OER using small stackable units of

knowledge that could be bundled into customizable pathways for learners. They were an important grantee that added a unique content focus to the portfolio that then included MIT OpenCourseware and Carnegie Mellon's AI-driven Open Learning, and prompted us to consider what learning assets were in high demand. In its second phase, OpenStax pivoted to openly licensed textbooks after realizing it was best to meet learners and institutions where they were and bridge them to the future.

You hold a Ph.D. in the Economics of Education from Stanford University. How has this discipline influenced your interest in developing the Open Educational Resources movement?

My career was seeded from my teaching experience through a volunteer program in Kingston, Jamaica, directly after college. Mathematics was my undergrad major and what I taught to middle and high school students. I also tutored in a ghetto community and at a prison. It was there I realized the power of education to break pathways of poverty. From then, the poverty education nexus became the central defining thread of my career.

At Stanford this nexus naturally fed into the study of the economics of education and complemented the skills and experiences I had acquired prior as a teacher and qualitative research analyst. I had come to a profound understanding of the societal inequities resulting from limited access to quality education and wanted to influence decisions about resource allocation. The courses and theoretical modeling involved in my dissertation honed my analytical skills. This training and discipline has helped me throughout my career, but particularly at Hewlett, as we made decisions about trade-offs and projected returns on investments in the various segments of the open educational resources portfolio.

How did your time as President and CEO of Creative Commons complement the work you led at Hewlett?

Hewlett first invested in Creative Commons in 2002 and continues to this day as Open Educational Resources require a legal infrastructure for sharing. Since Creative Commons was part of the early portfolio of OER investments, I learned with the organization as it piloted versions of its licenses. After I left Hewlett I served as a board member and then joined as CEO in 2011.

At that time, OER was approaching its tenth year and gaining traction globally, yet concerns with the Creative Commons licenses were being raised as early versions were based on U.S. law. There was a unique opportunity to upgrade the licensing infrastructure for worldwide applicability thereby removing friction to its use. A new global license required input from communities across the globe. I am grateful we were able to secure diverse funding and build out the legal, community liaison, and communications teams, as well as add additional staff in open education for this

effort. Listening to the community was critical. The Creative Commons 4.0 license suite was released in 2013 and continues to endure today.

What do you consider your proudest contribution, one that made the largest contribution to student learning?

When I reflect on my career and the Open Education field I am grateful that I have had the opportunity to contribute to this movement continuously for 25 years. From the beginning at the Hewlett Foundation, then at Creative Commons, to my work that continues today as a Board Member for Open Education Global and as an Advisor for OpenStax, I feel proud when considering the past and each new OER contribution advancing student learning. I don't see a single OER contribution as the silver bullet for student learning. Rather, I see the power of the whole being greater than the sum of the parts. It takes a committed community to advance change and OER has that dedicated community. The field is continuously evolving to improve student learning for all. This was the goal. In 2001, in our wildest dream as we sought to architect a new field to equalize educational opportunity, we could not

"... I see the power of the whole being greater than the sum of the parts. It takes a committed community to advance change and OER has that dedicated community."

have imagined that open education would be this successful.

If you could predict the future of higher education, how do you envision that OER and Zero Textbook Costs (ZTC) play a role?

In the future, higher education will shift and become more flexible in its offerings, and OER and ZTC will play a critical role in ongoing learning. In the larger context, higher education, like all organizations, will have to evolve to address learners' changing needs as the world around us shifts. And we are at the early stages of understanding how AI will be integrated effectively for student learning. So while we do know that the jobs of tomorrow have not yet been created, and the pathways in and out of jobs will look different from the past, the historic progression of four years of higher education into a career will likely not serve learners well into the future.

At the same time, higher education organizations, like all organizations, face significant resource constraints. When there is a downturn in funding, organizations are forced to become scrappy, do things differently, and innovate. I believe the braided influences of AI, new career pathways, and limited resources will encourage higher education institutions to embrace OER and Zero Textbook Costs. This will be true particularly in the community college sector and throughout state public education institutions in the United States. Most importantly, OER and Zero Textbook Costs will continue to play a major role because it provides an opportunity for all students, although particularly for those with limited financial resources, to have access to learning otherwise beyond reach.

What do you think are the key factors that led to California playing such a key role in the Open Education landscape, culminating in California's historic investment of $115M in the California Zero Textbook Cost (ZTC) Grant Program?

In my mind, there are three key elements that led to this success. The first element is the many OER champions throughout California who contributed to the stepping stones that led to this historic investment. Here I give a shout out to you, Barbara, and your pioneering role contributing your Statistics textbook in 2006 to OpenStax, leading all of us to better understand the demand for zero cost textbooks. Others like James Glapa-Grossklag, Dr. Martha Kanter, Dr. Lisa Petrides, and Hal Plotkin also played critical early roles.

The second factor has been the highly influential role of the Community College Consortium for OER, which you helped launch, creating a wide tent for educators and students throughout the state to participate in OER and come to understand its value.

Lastly, the third factor, are the community and institutions that have long supported OER and here I recognize the Michelson 20MM Foundation, the Gates Foundation, and SPARC, and the many students that galvanized their voices strategically and persistently to build toward this powerful outcome.

This $115M success is an outstanding example of multiple groups of players working collaboratively on a common goal, also called in strategic change terms, the "top-down, bottom-up approach." Both are needed and play a critical role in energizing the work. It's really the synergy that makes the difference for impact. The success of this historic investment is the power of the collective community, and it will continue to be the power of the OER community into the future.

What else would you like to share about how your vision, leadership, and talent have benefitted the students of CA, our nation, and the world? (Don't be modest here!)

I've always acknowledged that one of the factors to the successful launch of the

OER movement was the right idea at the right time at the right place, and the Hewlett Foundation. Hewlett's ethos has always been to play an understated role in its investments, knowing that it's the leaders and the community closest to the work who have the deepest expertise. I share that ethos going back to my days teaching in the classroom and my belief that educators have the noblest of professions.

This belief dovetails with the coaching mentoring leadership style I have applied throughout my career. It has always been about empowering talented people to reach their full potential and sharing leadership purposefully. Since I am an introvert by nature and grew up in a large family, listening deeply and being willing to adapt readily are instinctual. And lastly, the quantitative and quantitative skills I honed throughout my education and positions have been productive for whatever strategic challenge arises.

"I often think of the [OER] movement as a tapestry, each of us a single thread, making a unique and skilled contribution, being woven into the intricate OER design that will endure for centuries."

Most importantly, the success of the OER movement has been built on the collective work of highly dedicated professionals across the globe. I often think of the movement as a tapestry, each of us a single thread, making a unique and skilled contribution, being woven into the intricate OER design that will endure for centuries. What a joy it has been to be part of this community and witness its impact on students. Thanks, Barbara, for the interview; it's been fun to reflect on the beautiful tapestry we have all created.

Image description: Headshot of Dr. Cathy Casserly, smiling, against a blurred neutral background.

Media Attributions

- Cathy Casserly

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Una Daly

Educators who hear the words Community College Consortium for Open Educational Resources (CCCOER) know that Una Daly's name and work are involved. Una was the indefatigable Director for CCCOER for over twelve years, retiring in 2024. For five years before becoming the full-time director, Una was already an influential leader in the open textbook field.

You started your career with a BA in both Mathematics and Computer Science, working in technology. Approximately twenty years later, you earned an MA in Educational Technology. How did your interests switch from engineering to supporting schools and universities with their technology needs?

I was a software engineer and project manager at Silicon Valley companies such as Apple, Motorola, etc. It was an exciting time to be in tech, and I had the opportunity to ride multiple technology waves. But at some point, I found myself leaning into how technology could be used rather than the technology itself. I had been the Technology Chair at my children's K-8 public school, which focused on the social-emotional needs of learners. I was able to observe firsthand the benefits for students in an academic environment that focused on project-based learning, student choices, and fieldwork. This piqued my interest, and I enrolled in a Teaching and Learning with Technology Master's program at Santa Clara University to dive more into the research and practice. My capstone thesis was on the use of student ePortfolios to foster deeper learning. I was fortunate to be hired at Foothill College to lead a program promoting the use of student ePortfolios. I also taught in the Computer Information Systems department.

In 2007, then-Chancellor Dr. Martha Kanter at Foothill-De Anza Community College District founded the Community College Consortium for OER (CCCOER), a national organization for community colleges to learn about and support each other in adopting OER. You were teaching and working at Foothill College at the time. How did your involvement come about?

Serendipitously, the OER program had just been launched at the Foothill-De Anza Community College District, led by the intrepid Dr. Judy Baker and you, when I was hired. As a first-generation college student years before, I was attracted to the

promise of open education and soon found a way to get involved in the adoption of OER at Foothill and expanding the nascent Community College Consortium for OER.

Reducing barriers to education for students, particularly those from low-income, minoritized, and other underrepresented communities, were driving forces for me. I understood firsthand the importance of a college degree for economic opportunity and stability. I was pleased to be hired as the associate director of College Open Textbooks, the grant program facilitated by CCCOER. College Open Textbooks focused on building a community of practice to support the adoption of OER. It had three focal points: faculty and staff training, research on teacher and student usage, and accessibility of resources. My initial responsibilities were focused on faculty training and accessibility of OER to support students with disabilities, but I also closely followed the research conducted by our grant partner, ISKME, learning how important outcome measurements can be to program growth and sustainability.

You have been involved in the California open textbook movement since early in its inception. What captured your interest to cause you to dedicate the rest of your academic career to OER?

The short answer is that the open education movement kept growing and evolving, aligning itself more strongly with diversity and inclusion. The opportunity to lead this work drove my interest. Facilitating and developing faculty training to support teachers working with students who could most benefit from OER and open pedagogy was exciting and rewarding. Enabling students to be co-creators of knowledge and have choices in demonstrating their learning continues to excite me about the future possibilities for open education.

"Enabling students to be co-creators of knowledge and have choices in demonstrating their learning continues to excite me about the future possibilities for open education."

Did you have an "aha moment" in Open Education, and if so, when and what was it?

I've had a few "aha moments" over the years and hope to continue to do so.

- In the early years, I learned the importance of designing programs for sustainability. It takes a village to build a program that will continue to grow and evolve after the initial leader retires or shifts roles. We had a lot of examples of this in the early days where one faculty or staff member did most of the work without building a people and resources infrastructure at the institution. When that leader left, the program would inevitably wither. So it became important to emphasize the team approach, where multiple departments are invested and ongoing funding streams are identified.
- While working with Achieving the Dream on the OER Degree program, I became much more aware of the need for representation of underrepresented faculty, students, and community members in our OER work. Several CUNY colleges and Boston's Bunker Hill College were leaders in this area. CUNY had a faculty member conducting research on diversity and inclusion in OER and another publishing an open textbook with her immigrant students featuring their life stories. Bunker Hill College in Boston had strong connections with its African American and Asian communities to facilitate awareness of the history and importance of these local communities to their students and staff. These efforts were early steps in evolving the OER movement beyond questions of textbook quality and authorship reserved for the privileged scholars.
- The third aha moment was the growth of "open pedagogy" or "open educational practices" as a key component of open education and social justice. Fostering student action and participation in their learning is the third and most advanced principle of open education and social justice as posited by Sarah Lambert in her 2018 paper, Changing our (Dis)Course: A Distinctive Social Justice Aligned Definition of Open Education. In 2020, when the Open for Antiracism Program was envisioned by CCCOER and Dean James Glapa-Grossklag, College of the Canyons, we placed open pedagogy at the program's center with open educational resources as enablers to support student-led learning in the classroom.

CCCOER became part of OE Global, an international organization. You were the first full-time paid director of CCCOER and developed the organization and its mission to one that provides effective practices in OER, featuring speakers, highlighting faculty, and providing professional development nationwide. How did that all come about?

"Many talented and generous educators over

the years shared their expertise in open education, accessibility, open pedagogy, antiracism, and more with [CCCOER] members and other interested educators, helping to create an open community of practice."

I was excited to lead CCCOER forward at OE Global and could see future benefits of working and learning with institutions beyond North America. My first steps were to form a small Executive Council of leaders across the U.S. and Canada to help guide and set direction for the fledgling organization. That small group of leaders were experienced administrators and faculty who brought not only their institutional wisdom but also their institutional support to grow and enhance the support and services that CCCOER could offer to member colleges. Many talented and generous educators over the years shared their expertise in open education, accessibility, open pedagogy, antiracism, and more with our members and other interested educators, helping to create an open community of practice. We used the technology tools of the era: email lists, regularly scheduled video conferencing, and educational conferences focused on open, online, and participatory practices. Although the community college system is unique to the U.S. and Canada, I found many common benefits and challenges of OER adoption for CCCOER members and the universities and colleges throughout Europe, South America, Australia, Asia, and Africa.

OE Global was composed mostly of research university members when CCCOER joined in 2011. What were some of the benefits for California community college staff, faculty, and administrators of this global perspective on the field of Open Education?

When CCCOER joined OE Global, it became part of the larger worldwide open education movement, broadening our college members' awareness of the international OER movement, including UNESCO's involvement. In addition, becoming part of OE Global gave CCCOER an international stage for sharing the amazing OER work at community colleges. The California community colleges were and continue to be a major force for innovation in open education and their work

attracted worldwide partnerships. Invitations to participate in grant programs focused on OER research and development with leading universities were made possible for CCCOER member colleges.

You were the key advisor for the initial design and implementation of the California Open Online Library for Education (COOL4Ed), the repository for the California Open Textbook Initiative housed in the CSU Chancellor's Office. How did that project enhance adoption of OER in the CSU and CCC systems?

I was honored to be selected as a key advisor to the COOL4Ed project team, which promoted collaboration between California's three public higher education systems to expand educational access through the adoption of OER. The COOL4Ed project and its follow-on open textbooks grants to community colleges and state universities greatly expanded over usage statewide and importantly confirmed the articulation of courses using OER for transfer into state universities. This confirmation greatly aided in convincing faculty to consider OER adoption to ensure students had access to needed course learning materials and could also successfully transfer. In addition, I developed a collection of case studies through interviews with the faculty pioneers who were leading the adoption of OER at their institutions. The case studies provided concrete strategies and motivation for interested faculty to adopt open textbooks instead of costly publisher textbooks.

CCCOER's mission is to promote the adoption of open education to enhance teaching and learning at community and technical colleges. Under your leadership, it expanded into advocating for open educational policies, developing innovative programs such as The Open for Antiracism (OFAR) program, and participating in Achieving the Dream's OER-based degree program. How have these national projects supported students in the California Community College system?

Achieving the Dream's (ATD) OER degree program, launched in 2016, was the first at-scale attempt in the U.S. to create comprehensive OER pathway programs at community colleges. Thirty-seven colleges were selected, including Santa Ana and Lemoore College, both members of CCCOER and based in California. CCCOER was selected to develop the community of practice, where we provided opportunities for participating colleges to share their challenges, successes, and progress informally over the three-year program. Leveraging research and lessons learned from ATD's program, College of the Canyons and Lemoore College led the first California ZTC program's technical assistance, supporting about 25% of the state's colleges. CCCOER provided the community of practice facilitation once again. The strong outcomes of the first ZTC program ultimately led to the creation of the current California

community college (CCC) ZTC program, which funds 100% of state colleges with the potential to affect the 2.1 million students enrolled throughout the system.

How did your leadership and global knowledge of the Open Movement evolve into supporting the California Community College (CCC) Zero Textbook Cost grants and project?

CCCOER brought expertise and research outcomes gathered from Achieving the Dream's OER Degree program to the support of the California Community College ZTC project. Our long history of working within the California Community College system, with many member colleges, was instrumental in building a community of practice based on relationships of trust and longstanding. Lessons learned from OER programs at member institutions across the U.S. and Canada also informed the support and sustainability considerations of this work.

In your role as Director at CCCOER, what is the significance of the California ZTC Grant Program for community colleges in the state, and also for Open Education in general?

Within California, the ZTC program makes it possible for each of the state's 116 colleges to engage their faculty in the development of OER pathways to support their students. The funding provides faculty training and coaching as needed and compensation for the time spent on OER development. California ZTC is an exemplary program nationally and is looked to for a greater understanding of the infrastructure needed for a diverse collection of colleges from varying regions with distinct business models, policies, and student populations to develop and share OER pathways while avoiding duplication. The outcomes of this large-scale program serving 2.1 million students can provide decision makers nationally and internationally with needed data for developing similar programs in their local context.

What else would you like us to know about your role at CCCOER, about how you supported the CCC system, and ZTC degrees?

In addition to the engaging work with community colleges, I was fortunate to co-lead with Mary Lou Forward, OE Global Executive Director, several initiatives for our worldwide members. Through this work, I gained a deeper understanding of the universality of benefits of open education. Although the programs targeted the adoption of OER and open educational practices at different institutions and in different countries, the challenges for faculty and students had remarkable commonalities, including working within existing academic structures that were often hierarchical and resistant to change.

- Our ePioneer program was a year-long collaboration with the Saudi Arabian Ministry of Education to train their female professors on best practices for online and open education at the university level. The training included both in-person

in Saudi Arabia and virtual training for the faculty from universities throughout the kingdom and also a two-week stay at universities in the United States with leading open and online programs to foster peer faculty interactions.

- Subsequently, I led the OECx MOOC program in which OE Global provided free edX platform support to interested member institutions in the development of OER-based MOOCs. Members from China, Japan, Spain, Taiwan, UK/India, and the United States utilized the opportunity to develop high-quality open courses to learners throughout the world. Particularly interesting was the TESS-India MOOC, which supported virtual teacher training across multiple Indian states with an emphasis on inclusive, participatory child-centred pedagogy and featured a toolkit of almost 200 freely available OER.

You have often been behind the scenes promoting awards for community college faculty and students in the global OER movement. What is your reasoning in ensuring the acknowledgment in an area often dominated by research universities? How has it benefited the U.S. community college OER movement?

When MIT OpenCourseware sparked the initial OER movement over twenty years ago, community colleges were not part of the conversation. Dr. Martha Kanter was one of the first community college leaders to recognize the impact that OER could have for her students who came from less affluent and minority communities. Affordability has been key to the community college mission since its inception, but lower per-student funding than universities and a lack of research infrastructure can limit innovation. These limitations were overcome by partnering colleges with universities in applying for OER grants. The universities provided research capabilities but also benefited from the much larger student populations available at colleges. The colleges were able to offer their students high quality open and free resources that otherwise would have not been available or would have increased their student debt.

CCCOER and OEGlobal rely heavily on grants, especially the William and Flora Hewlett Foundation, for their continued existence. What are the opportunities and challenges for philanthropy and other funding for our movement in the future?

In addition to the funding from private foundations such as the William and Flora Hewlett Foundation and ECMC Foundation, CCCOER has received funding in partnership with its member institutions from state and other governmental programs. Funding from international governments and agencies is country specific, with some having restrictions on direct funding of non-profit organizations incorporated in the U.S.

A potential funding area for open education at community colleges is in

collaboration with workforce entities. Most community colleges strive to maintain industry partnerships to better serve the needs of their regional industries and businesses. Engaging faculty in the development of OER-based training curriculum can reduce costs for businesses and provide a supply of instructors for in-house company training.

"A potential funding area for open education at community colleges is in collaboration with workforce entities."

Looking back on your 15-plus years in the OER movement, what are you most proud of? What do you feel is your greatest contribution to the field?

- Empowering the people doing the work—teachers, staff, and students—has always been my guiding principle in leading open education programs. I believe my greatest contribution towards growing the OER movement has been uplifting these voices through designing learning opportunities to share the important work of open educators and their students.
- With a North American-wide consortium, I worked towards connecting colleges and universities with similar programs across state and country boundaries. Our programs gave member colleges the opportunity to work and learn together to design OER resources, practices, and policies that addressed the critical open education principles: access and distribution, recognition and inclusivity, and participation and representation.
- In designing our specialized OER/ZTC programs and our Open for Antiracism program, we worked closely with faculty leaders and deans to help them align their open education programs with institutional goals of affordability, equity, and student success. This linkage helps open education leaders to better communicate the importance of funding and support for OER programs with decision makers at their institutions.

What does the next chapter of your life hold?

I bring the skills I developed in the professional world of engineering and open education to lead and support in the non-profit space currently. Several of my strong interests, including writing, health and well-being, and the environment, drive choices

of how I spend my time now. I am enjoying my sixth year on the managing board of my local YMCA, leading the board of the South Bay Writers branch of the California Writers' Club, and volunteering at my local meditation center, in addition to spending time with family and friends, preferably outdoors in nature. While I continue to enjoy working with people across the state of California and beyond as a California ZTC coach, there is something very satisfying about working with people who live in my local community. Community building and support have been and remain an essential and enduring part of my life personally and professionally, and I'm grateful for the continued opportunities.

Image description: Headshot of Una Daly, smiling, against an outdoor background.

Media Attributions

- Una Daly

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James Glapa-Grossklag

James Glapa-Grossklag has been an indefatigable leader in the OER and Zero Textbook Cost movement for over 15 years. His brilliance and leadership have touched almost every aspect of California's pursuit to eliminate textbook costs for California's higher education students.

You were Dean of Distance Learning and Training at College of the Canyons and not teaching out of an OER textbook when you first became involved in the OER movement. Explain what sparked your interest and why you became deeply involved.

When I first learned about the OER movement in 2007, its goal of providing universal access to knowledge seemed to be a natural extension of the community college mission to provide universal access to higher education.

My involvement in the OER movement goes back to what you, Barbara, and Martha Kanter and Hal Plotkin started at the Foothill-De Anza Community College District. My college CEO at the time, Dr. Dianne Van Hook, is close friends with Dr. Kanter. She learned about OER through seeing a presentation about MIT OpenCourseWare. Dr. Kanter told Dr. Van Hook of her intent to bring OER to the community colleges. Fortunately for me, Dr. Van Hook asked me to organize a visit with her to Foothill-De Anza to learn from Dr. Kanter and her team, and that's when I met you and Judy Baker.

After spending a day learning from you and the Foothill-De Anza team about the vision and promise of OER, on the way home Dr. Van Hook said to me, "I don't understand the technical side of this, but it's a social justice issue. Make it happen."

As a new administrator at my college, this direction and trust from the CEO were both intimidating and exciting. It was intimidating because I didn't have any clear path to "making it happen" at my college; it was exciting because it conveyed the trust that the boss had in me.

I was determined to succeed (whatever that meant!) because the values of the OER movement spoke to me deeply and clearly: making education universally accessible. In addition, the idea of providing "learning anytime, anywhere" overlapped with the dramatic expansion of distance learning that was occurring at the same time, which was the focus of my dean's position at the time.

"I was determined to succeed (whatever that meant!) because the values of the OER movement spoke to me deeply and clearly: making education universally accessible. In addition, the idea of providing "learning anytime, anywhere" overlapped with the dramatic expansion of distance learning that was occurring at the same time, which was the focus of my dean's position at the time."

When you were President of the Board of the Community College Consortium for Open Educational Resources (CCCOER), you grew the organization from 100 to 250 college members. How did you build that momentum? How did the national membership increase support for California community college students?

Above all, nobody does this work by themselves! I had the amazing opportunity to collaborate with Una Daly to build the membership of CCCOER. Our collaboration originally stemmed from a grant that the OpenCourseWare Consortium, now evolved into Open Education Global, received from the William & Flora Hewlett Foundation to expand the OER movement into U.S. community colleges. So Una and I had funding to travel the country from conference to conference and college to college. . . back in 2011 and 2012 speaking to audiences of one or two and then three or four and so on.

This was a time when distance education was really growing in the community colleges. Since OER are born digital, we started showing up at distance education conferences. We billed a lot of our campus presentations as the opportunity to learn

about an aspect of digital teaching and learning.

At every conference and campus where we spoke, we literally passed around a paper sign-in sheet asking for email addresses, and thus the CCCOER email list was born. Today, that list has 1500 subscribers and is considered an essential means of communication for the field of OER.

For our presentations, we started with what we now see as the basics of OER, namely removing cost barriers for students, supporting faculty creativity, and open licensing. When I look back at some of our early presentation slides, there's a heavy emphasis on affordability. While we still discuss the affordability of education (unfortunately), we'd also address the ability of faculty to create culturally responsive instructional materials and engage in open pedagogy.

This national work connects back to creating opportunities for California Community College students because you had two CCC folks in me and Una criss-crossing the U.S., and as people learned about OER, they learned about it from California folks. This complemented all the other OER activities coming out of the state, thus deepening the reputation of California as a place of innovation. Over time, this reputation helped to create partnerships for projects, successful grant applications, and so on, so that funding was flowing to projects that created opportunities for our students in the state.

You were the first member of the international Board of Directors of OEGlobal from a community college. What prompted you to run for election to this board, previously made up solely of leaders from prestigious research universities? How did you expect your involvement to advance community college faculty creation and/or adoption of OER for their own classes?

I served as president of the board of CCCOER from 2011 to 2015. In 2011, I first joined the OEG board in an ex officio capacity, arising from the merger of CCCOER with OEG that was supported by a grant from the Hewlett Foundation. There was a sense that, as the OER movement (as we then called it) was growing, it shouldn't be splintered between different sectors of education, such as community colleges in the U.S. and research universities around the world. So as the merger occurred, I began attending OEG board meetings. My first meeting was in Tokyo in the fall of 2011.

When I introduced myself to the board, I had to first explain what community colleges are and establish the credibility of those institutions as well as of myself as their representative.

Then in 2013, I ran for and won a board seat in my own right. The case was simple and continues to be to this day. Of all OEG membership around the world, the fastest-growing sector is U.S. community colleges.

And a representative role always carries at least a dual function. On the one hand, you're representing your constituents within an assembly, and on the other hand, you're communicating to your constituents what's happening in the other areas that are represented in that assembly. So while I was sitting at the table with and making conference presentations around the world with representatives of top research universities, I was also telling our community college colleagues in the U.S. that OER is a global movement, it's part of the ranking mechanism for universities in this country, the minister of education in that country is talking about it, it's on a meeting agenda at UNESCO, etc. This helped to give our work credibility. You know, OER isn't just some crazy idea that you heard about at a conference; it's real and important and validated by others. This credibility helps to remove barriers and persuade people to get involved.

While on the Board of OEGlobal, you moved into the role of President of the Board, traveling around the world and giving keynotes and presentations in other countries. In fact, to date, you are the only past president who works at a community college. How did your international advocacy and work affect your leadership in OER back in the CCC system?

Yes, I was incredibly fortunate to serve on the OEG board in many roles for eight years. First as ex officio representative of CCCOER, then as an elected board member (the first from a community college, and you were the second, Barbara!), then as treasurer, then as president, then again as treasurer.

I'd like to think that my colleagues on the board elected me repeatedly as an officer because of my collegiality and competence. However, it's also the case that you, and Una Daly, and many others continued growing the membership of CCCOER so that the community colleges, the constituency I represented on the board, were the largest group of members.

In addition, I was consistently successful in securing outside funding to support CCCOER's work. For a number of years, the grant funding that I secured was the main source of funding for OEG after the base operating grant from the Hewlett Foundation. So all of these factors made it appropriate for me to serve in a leadership capacity for OEG.

My leadership experience globally helped my CCC leadership by building my confidence and credibility and sparking my imagination of what was possible. As president of the OEG board, I spoke at UNESCO headquarters in Paris, co-hosted a summit of higher education leaders in South Africa, and opened the annual OEG conference when it was held in Poland by welcoming delegates in Polish. After these experiences, I wasn't phased by walking into the Governor's Office or state legislature back home in California.

During the two phases of statewide funding for the Zero Textbook Cost Degree Grant Program (first $5 million total and then $115 million), you and College of the Canyons have served as Technical Assistance Provider (TAP). Through your TAP activities, hundreds of CCC faculty and staff have increased their knowledge of creating, adopting, and offering Zero Textbook Cost (ZTC) courses. Explain the outreach the TAP offers and how it has affected students throughout California and beyond.

The term Technical Assistance Provider is odd. It's not the case that I'm providing tech support like an IT office. The TAP role is about developing and delivering expert support, guidance, and training to help grantees achieve their goals. In the case of the $5M pilot program in 2016-19, the grantees were 25 colleges; with the $115M investment, the grantees are all of our 115 colleges. Also, during the pilot program, I was fortunate to partner as TAP with Ron Oxford and Kelsey Smith at Lemoore College.

As TAP for the $115M phase of the ZTC grant program, I have multiple roles. On the one hand, I worked closely with the California Community Colleges Chancellor's Office to develop the grant phases, craft the application process, review applications, and decide on awards. That was incredibly rewarding, essentially giving away $100M to historically underfunded community colleges.

On the other hand, I support the colleges in developing and implementing their ZTC programs. I do this in many ways. First, I'm constantly speaking with colleges, answering questions about everything from eligible expenditures and timely grant reporting to gaining buy-in from faculty and understanding open licensing.

Second, I work with a team of supremely talented faculty from around the state to develop and deliver free online training courses on all aspects of OER and ZTC. Course topics include making the case for OER and ZTC, building an OER support team, teaching with Open Pedagogy, designing OER with the lens of Universal Design for Learning, and understanding the relationship of Open Education and AI. Hundreds of colleagues across the state have completed these courses and dozens of colleges have adapted them for local training. The courses are openly licensed, naturally, and available in Canvas Commons; just search for #ZTCPD or College of the Canyons.

Third, I've engaged experts to host monthly office hours via Zoom on topics such as ZTC and librarianship, open licensing, and open publishing.

Fourth, I host annual ZTC summits at College of the Canyons. We come together, celebrate our successes, learn from one another, and build a community of practice across the state. This continues the tradition of hosting statewide OER conferences at College of the Canyons, which we began in 2015. Today, the annual CalOER conference takes place online, and I was glad to have served on the inaugural planning committee

for the conference; for some years, the OER conference at College of the Canyons was the only statewide gathering devoted to OER, and it's still the only in-person event.

Overall, all of these activities help students across the state by helping to bring new faculty into the fold of OER and ZTC; providing examples and evidence from successful implementations to help convince administrators to support ZTC programs once the grant funding concludes; and deepening the network of committed teachers who exchange ideas and OER materials.

For the past few years, you have been an OER Fellow for the Michelson 20MM Foundation. What do you do in that role, and how has being a Fellow benefited advancing your work in the field?

I'm following in your footsteps, Barbara! You were the very first OER Fellow for the Michelson 20MM Foundation.

Let's first recognize the great work that the Foundation supports, from an early investment in OpenStax to sustained advocacy for the historic $115M state investment in the California Zero Textbook Cost Degree Grant Program, and so much more.

I first met the Foundation through your generous introduction in 2018 when we brainstormed the idea of supporting students to advocate for OER across the state. Then, in 2019 and 2020, I collaborated with the Foundation during the advocacy for the second California state investment in the ZTC grant program. So I had gotten to know and admire the work of the Foundation.

In 2021, I was honored to take on the role of OER Fellow with the Foundation. Formally, I've facilitated introductions to key constituents in both the OER and community college spaces, attended events and shared insights with the Foundation, participated in outreach and advocacy campaigns and events, and generally been available as a thought partner. At its core, being a Fellow is maintaining a collaborative relationship with thoughtful, committed people from whom I learn a ton.

In your various OER and ZTC roles, you have been innovative in recognizing contributions of students, staff, faculty, and organizations. Can you share your thoughts on the importance of recognizing the contributions of students and staff, in particular?

A significant part of leadership is bringing people together and helping them to discover and channel their passions and talents. This is as true in Open Education as it is in any other domain. And yet, we have to acknowledge that in higher education, there is sometimes an element of snobbery that dismisses the contributions of staff. Students don't just magically appear in our classrooms, books don't magically appear on library shelves, grades don't magically get recorded, and OER don't magically get formatted for accessibility and proofread, and posted in your Learning Management System. We need to recognize and value the contributions of all team members; this is

just fundamental to creating a healthy and sustainable organization.

"A significant part of leadership is bringing people together and helping them to discover and channel their passions and talents. This is as true in Open Education as it is in any other domain."

Including students in the OER workflow has been a point of pride for us at College of the Canyons. We have long engaged current and former students to comprise our core OER team. The team essentially operates an in-house OER publishing team. They work directly with faculty discipline experts to locate resources, develop, and revise content. The OER team, with a course syllabus, lesson plan, or other directions from the instructor, locates already existing openly licensed sources from OER textbooks or from materials in the public domain. The OER team then matches these resources with the instructor's course, locating areas in which the instructor needs to create content. After all content has been located or created, the OER team formats it by making the spacing, font, and design consistent. The OER team also locates openly licensed images to accompany the material, if desired. In some cases, OER team members have been known to grab a camera and take their own photos to meet the desire for a particular illustration in a text. The OER team formats citations and verifies that all materials in the textbook are openly licensed or in the public domain. Once the material has been formatted, the OER team reviews the content for accessibility, readability, and errors relating to grammar and spelling. They will even create unique cover art for the finished textbook.

These students are proud to work alongside their instructors and tell us that it's inspiring to be a part of the broader academic enterprise. They also end up with a very concrete portfolio of work that is easy to share with prospective employers.

I've also been so pleased to help members of our OER team receive recognition for their contributions. Our very first student OER team member, Natalie Miller, received the first global student award from OEG in 2018 for her contributions; she was able to travel to the OEG Conference in the Netherlands to collect the award. Then, in 2019,

another brilliant team member, Trudi Radtke, was able to attend the OEG conference in Italy to participate in the opening keynote panel given by students. It's been really gratifying to facilitate these types of opportunities for talented young people.

What do you think are the key factors that led to California playing such a key role in the Open Education landscape, culminating in California's historic investment of $115M in the California Zero Textbook Cost (ZTC) Grant Program?

The key factors are the human factors represented in the contributions to this collection of interviews: creative, committed, caring individuals who want to make a difference by providing education to everyone, everywhere.

For example, Hal Plotkin and TJ Bliss, then with the Hewlett Foundation, literally got us in the door at the Governor's Office, so that we could even make the pitch for the state to invest in a ZTC degree grant program for community colleges.

Beyond the essential ingredient of the right people, we had the right timing. When the pilot investment in a statewide ZTC program concluded in 2019, we engaged in targeted advocacy through the key levers needed to secure funding in the governor's budget proposal and legislative action. This means that we had to understand those levers and have the ability to work them. Thanks to advocacy training that I received at College of the Canyons, I understood how to engage in advocacy through the community college Chancellor's Office. However, I had no idea how to engage the state government actors. Fortunately, you had a relationship with the Michelson 20MM Foundation, which did understand how to engage state actors. And so I was able to learn from you and the Foundation how to engage with the Department of Finance, the office of the governor, key legislative staff, etc.

Also, you have to consider timing. In 2019, the timing was right for a continued investment in ZTC grants for community colleges, since there was a projected budget surplus and Governor Newsom was relatively new in office and had long been a supporter of higher education. So we were successful in that Governor Newsom proposed $10M in his January 2020 budget for fiscal year 2021. However, January 2020 was, of course, followed by the lockdowns of COVID, and it seemed the California economy was in the tank, so that funding was ultimately cut from the proposed budget.

Fast forward a year later to the governor's budget proposal in January 2021 for fiscal year 2022, and there was a budget surplus, thanks in part to the significant role that California-based tech companies played in communications and infrastructure during the pandemic. Where we asked for $15M, the governor added $100M to our proposal for a total of $115M. So timing matters.

You have developed so many innovative programs in the OER sphere.

What is your biggest contribution to the movement? And what are you most proud of having done?

I've helped to create structures and organizations that carry the work forward beyond my involvement. When I became president of the advisory board for CCCOER in 2011, there were fewer than a dozen institutional members. When I concluded my service in 2015, there were nearly 200 members. Today, CCCOER is an essential component of the field of Open Education, with a well-established executive board and support staff. I'm glad that I played a role in establishing CCCOER, but of course, so much of its growth came from the tireless efforts of Una Daly.

Helping to secure California state investments in the ZTC grant program and helping to translate these investments into reality by working with our 115 colleges is a lasting legacy. The CCCs are the largest system of higher education in the U.S. What happens in California is often emulated by other states. The hundreds of new OER textbooks and courses and other materials that are being created by CCC faculty will be adopted by educators across the country and around the world. It's incredibly gratifying to know that the impact will help make OER more mainstream.

I think that my most significant contribution is the Open for Antiracism Program, or OFAR. I co-founded OFAR with Una in 2020. OFAR is a year-long professional development program that helps faculty learn to leverage OER and open pedagogy to transform their teaching to be antiracist. OFAR is based on two propositions. First, faculty want to make their teaching antiracist but need support and training. Second, OER and Open Pedagogy are effective tools to do so.

OFAR trains teams of faculty from community colleges across California. They learn about OER and open pedagogy, and most importantly, antiracist pedagogy in a facilitated online course. At the end of the course, participants craft an action plan to implement a change in their teaching during the following term. So the model is learn, then do.

Thanks to a rich research component, we've documented significant improvements. The self-confidence that participants have to discuss topics of race and racism with their students increases during the program by 80%; 90% of participants say that OFAR improved their teaching; student success rates in classes average a 5% increase; and 100% of students in classes where faculty implemented OFAR changes say that they felt seen and heard.

Overall, CCCOER, the California ZTC program, and OFAR create supports and structures to help remove barriers to learning and promote innovative teaching where before no such supports or structures existed.

What would you like to share that I didn't ask you about?

I'd like to acknowledge the importance of my longtime leader, the retired CEO of

College of the Canyons, Dr. Dianne G Van Hook. She first introduced me to Martha Kanter and Hal Plotkin. She helped me to grasp the social justice component of OER, challenged me to make OER a reality at our college, and supported me to engage in the wider world of Open Education beyond our institution.

Countless times, I've been the only community college representative in the room with funders, government officials, international organizations, and elite institutions around the world. While I've certainly worked hard to get myself into those spaces, and I think I've done a good job representing the amazing work of dedicated community college educators. But it's also the case that Dr. Van Hook supported me to do this. When I went after funding, she wrote letters of support and made phone calls. When I flew halfway around the world and missed events on campus, she made it known on campus that she supported me. When I received recognition for my Open Education work beyond the college, she made sure that the college issued a press release. If I had worked for an institution that was myopically focused on local activities and short-term goals, I wouldn't have been able to do the global work that I was able to do. And this is thanks to Dr. Van Hook believing in Open Education and believing in me.

What do you hope your legacy will be?

On the one hand, I know that my legacy will be having helped to remove barriers and expand access to education. But toward what end? If we educate more people who do horrible things, that isn't success. The overall objectives that drive me in this work are to help create a culture filled with diverse histories, cultures, and languages; shape an economy in which we share resources equitably; and support a politics in which people can participate inclusively. That's the destination.

"The overall objectives that drive me in this work are to help create a culture filled with diverse histories, cultures, and languages; shape an economy in which we share resources equitably; and support a politics in

which people can participate inclusively. That's the destination."

On the other hand, I hope that my legacy consists of the opportunities that individuals have to get in the game, to participate. People whom I've helped in ways large and small. Smiling at a shy person in a meeting so that they feel seen; mentoring someone in the early stages of their career; inviting someone to partner on a project for the first time; nominating someone for an award or making a phone call when someone's applying for a job. That's the way we get to our destination, helping each other, together.

Image description: Headshot of James Glapa-Grossklag, smiling in front of bookshelves.

Media Attributions

- James GG

4

Gerry Hanley

We have the privilege to learn from Dr. Gerry Hanley, a trailblazer in the entire movement of free access to learning resources. Dr. Hanley was the founder, leader, and face of Open Education for the California State University System for many years, as well as the Executive Director of MERLOT & SkillsCommons.

You started your professional career in industry, with a Ph.D. in Psychology, designing and delivering mentoring programs to engineers. How did that job lead you to CSU Long Beach, the university that has been your home base for over 40 years?

Actually, I started my career as an academician. I earned a Ph.D. from SUNY Stony Brook in Experimental Psychology and one of my first publications was titled "On evaluating open education." Forty years ago, open education was about opening the design educational curriculum and pedagogy to the students and teachers vs. administrators. Giving agency to students was very exciting. My work in spatial problem solving/cognitive maps, environmental psychology, and community psychology helped me get my tenure-track position at CSU Long Beach (CSULB) as an Assistant Professor in 1984. I taught courses in cognitive psychology, learning (behavioral psychology), and critical thinking, and continued to publish in a variety of disciplines.

My involvement in industry began in 1990 with my work in knowledge engineering, and one of my graduate students asked me to work on a major challenge for the Space Shuttle program, run by Rockwell International. The engineers who designed the Space Shuttle were retiring and they needed to "transfer" the resident expertise to the newer hired engineers. I was hired to design a technical mentoring program to ensure the Space Shuttle staff had the expertise to safely and successfully fly Space Shuttle missions for NASA. I spent 19 years consulting for Rockwell/Boeing and in the process learned about systems engineering, project management, and much more that helped me manage large, complex organizations and technology systems. These skills were essential for my work on MERLOT and the CSU systemwide academic technology initiatives at the Chancellor's Office.

The focus on professional development of expertise for the Space Shuttle engineers fed back into my academic career where I became CSULB's Director of the Center for Faculty Development and Director of the Office of Strategic Planning. The blending of

my academic and industrial experiences prepared me (as best as possible) for what lay ahead with design, managing, and sustaining large-scale academic technology programs, including MERLOT and SkillsCommons.

You're a trailblazer in the OER movement, involved since 1997, although the nomenclature has changed over the decades. MERLOT was created in 1997 "to enable the formation of communities engaged in building shared knowledge bases of learning materials." You have been its Executive Director and Program Manager since its inception. How has MERLOT evolved over the past 37 years?

The idea of MERLOT began in 1993 when the internet was emerging as a force within higher ed. Working with Chuck Schneebeck at CSULB's Computing Center, we were all excited about having a picture of a campus map posted on the web, and if you clicked on one of the buildings for a department, it opened a second webpage with a list of materials related to the department's discipline. The project was called "the virtual campus" and it was a very rough idea of an online library. I became just another member of the academic technology team as the design of the multimedia library developed over the next few years.

In 1997 when we launched MERLOT, I was the lead for the faculty development program to facilitate faculty developing instructional technologies and then sharing them in the open library, while still a faculty at CSULB. Chuck Schneebeck (then Director of the Center for Distributed Learning, CSU Office of the Chancellor) and David Ernst (CIO at the CSU Office of the Chancellor) were the "executives" for the project. There was no Creative Commons license then and sharing instructional materials was unheard of. But the idea of creating a scalable program with technology facilitating collaboration of faculty distributed around the California State University was intriguing to many. The Center of Distributed Learning (CDL) won an award that led other higher education systems to visit the CDL, and they asked if they could join MERLOT. Though MERLOT was designed to be an open library for the Cal State University (CSU) faculty, we quickly opened up the project to four other higher education systems in North Carolina, Georgia, and Oklahoma, with each system focused on building a collection of "learning objects" (now called apps) in teacher education, business, physics, respectively (and the CSU focused on biology). With these four high-priority disciplines, I designed a process for faculty within each discipline to develop peer review criteria that could be operationalized within each discipline. The standardization of a quality assurance process for instructional technology/learning objects was a cornerstone for MERLOT developing editorial boards for peer reviewing the materials in the collection and adding the peer reviews to the material's description (metadata) so library users would be informed about

their peer's assessment of quality.

"The standardization of a quality assurance process for instructional technology/learning objects was a cornerstone for MERLOT developing editorial boards for peer reviewing the materials in the collection . . ."

In 2000, I became the Senior Director of Academic Technology Services at the CSU Office of the Chancellor and responsible for MERLOT. You asked about the evolution of MERLOT over the next 25 years and in brief, the MERLOT "vineyard" blossomed. MERLOT developed:

- 24 editorial boards,
- an OER Authoring tool (MERLOT Content Builder),
- federated search, and now our "Smart Search" that searches about 80 other open libraries and searches the web for educationally relevant materials,
- an Open Educational Practices portal with over 1,000 eportfolios to showcase faculty member's instructional practices for innovative teaching,
- over 100 custom branded portals for our academic partners around the world,
- a member community of over 210,000 people in 195 of 196 countries around the world who create open collection of over 100,000 materials,

and much more. The CSU's Affordable Learning Solutions website provides a timeline of a number of milestones for MERLOT and its derivative programs.

How has the MERLOT international community and COOL4Ed supported students and faculty in the California UC, CSU, and CCC systems?

The California Community Colleges were a long-time partner of the CSU's MERLOT program and MERLOT-provided professional development workshops for the CCC over the years (a shout out to James Glapa-Grossklag, whom I first met years ago on the "Open Doors" collaboration). The major CSU-MERLOT activity that supported the

three systems was our leadership working with legislators to define a process and funding for development of a multisystem program, the California Open Online Library for Education (SB 1028, SB1052, SB1053). COOL4Ed became a shared library of OER that was peer reviewed and included accessibility evaluations aligned with the General Education courses that the three systems shared. The initial legislation required matching funds from grants to release the state funds, so I wrote and was awarded $1M from the combination of funds from the Hewlett and Gates Foundations. Today, using the shared CID course numbering system, faculty from any California campus can search and find OER for specific courses. CSU-MERLOT led to other legislative efforts (AB 798, SB1359, etc.) that facilitated collaboration and sharing of standard practices that benefited students who frequently enrolled at campuses across our three systems. COOL4Ed continues to provide a backbone of technology services and professional development supporting the three California higher ed systems and continues to grow the collection of OER aligned with transferable courses, and the community of faculty and staff becoming OER advocates.

In 2014, the U.S. Department of Labor released the TAACCCT (Trade Adjustment Assistance for Community Colleges and Career Training) program. You created and became the Executive Director of SkillsCommons, free and open for all users to have instructional materials to support the development of job-driven skills. Until then, most OER were for university-level courses, not for the trades. Explain the impact of the TAACCCT grant and SkillsCommons.

I feel extraordinarily fortunate to have had the opportunity to play an instrumental role in the $1.9 billion TAACCCT program. Working with the terrific staff at the U.S. Department of Labor and leveraging the terrific staff at MERLOT and the CSU Chancellor's Office Digital Library Services, I led the design and implementation of SkillsCommons, which is still actively serving the workforce development needs of community colleges, career and technical education programs, and workforce training programs around the world. We received the four-year grant in June of 2014 and had to have a functioning digital library by August of 2014, because the first round of TAACCCT grantee projects were ending in October 2014, and they were required to make all their grant-produced materials publicly available with an open license. One impact of the TAACCCT program was that we had to create a professional development program immediately, in partnership with Creative Commons, to explain open licensing.

After the training, we had to provide technical assistance to get the 256 projects across fifty states to implement the licensing over the four years. Once the materials were properly licensed, we had to provide professional development and technical

assistance for the people in these projects to properly catalog and upload their files into SkillsCommons. This required all the project participants to understand and implement a common set of descriptions (metadata such as NAIS, SOC, CIP, and about 25 other metadata fields) of their materials to enable people to easily discover their materials in the library. These two activities, implemented with "vigor" within a short timeline, enabled rapid organizational awareness of OER across the over 700 community colleges participating in the 256 projects. It also produced a shared understanding and recognition that materials produced by community colleges across the U.S. were quality instructional and program support materials that they could freely and immediately reuse, revise, remix, retain, and redistribute (thank you, David Wiley, for the 5 Rs). In my opinion, never before had community colleges belonged to a functioning community of colleges that shared resources that produced mutual and multiple benefits. In 2024, ten years after we launched SkillsCommons, materials in SkillsCommons were downloaded about 440,000 times over a three-month period.

The Department of Labor funding ended in 2018 and SkillsCommons became a "sister"collection within the MERLOT organization. The Department of Labor's requirements for open licensing and public access to materials produced by their grants have enabled SkillsCommons to continuously grow the collection and showcase open educational practices for apprenticeships, development workforce pipelines, career navigation, innovative pedagogies, partnerships with industries, storytelling, and more.

For almost six years, you were the Vice Chancellor of Academic Technology Services for the CSU system. One of the many innovative programs you oversaw was the CSU Affordable Learning $olutions (AL$), which continues to this day, including an annual conference. How has the AL$ supported students across California?

Actually, I had the same role and responsibilities for Academic Technology Services for almost 20 years; the change from Senior Director to Assistant Vice Chancellor was just a title change. The almost 20 years of experience working with 23 campuses across a wide range of academic technology topics (from library management systems to learning management systems to accessibility of technologies, to support faculty adoption of innovative technologies) was an essential context for planning the AL$. In March of 2010, I presented the initiative to the CSU Board of Trustees and proposed that we could reduce the estimated cost of course materials from about $300M annually to $150M annually. In 2025, the AL$ initiative will hit this target of saving students an estimated $150M in course materials.

"In 2025, the AL$

initiative will hit this target of saving students an estimated $150M in course materials."

One part of this story that isn't well known is that in 2004, I started an initiative called "The Digital Marketplace" where I invited commercial publishers and library companies to the CSU to discuss how we could collaborate on a unified marketplace where faculty and students could find OER and digital commercial resources within an integrated platform. Back then, digital rights management was a challenge, and we worked with IBM and Pearson to test a technology system that would protect the commercial providers' assets as well as make the free materials available for distribution. IBM and the CSU team published an article on the Digital Marketplace in 2005 and it was highlighted in the 2007 US Congressional Report "Turn the Page," about textbook affordability. I find it interesting that in 2007, a company called CourseSmart was launched, which provided any publisher with a unified platform for selling their new etextbooks and other digital materials. I believe CourseSmart accelerated the movement from print to digital course materials. CourseSmart was acquired by VitalSource in 2014, and VitalSource provides the comprehensive infrastructure for the successful delivery of publishers' digital content and applications. We ended the Digital Marketplace initiative in 2009 and transferred much of the strategy and work into the AL$ initiative, focusing on free and low-cost educational materials.

Affordability is one of many significant factors that impact student success, and the cost of textbooks is one of those factors where our actions can make a difference. The Florida Virtual Campus conducted multiple surveys over the years and the persistent results included: a) about 2/3 of students don't buy at least one textbook, b) about 45% of students take fewer classes per semester because of the cost of textbooks (and consequently, don't graduate in a timely manner, and c) about 23% said they fail the class because they couldn't afford the textbook. By providing affordable learning solutions that enable students to succeed academically, campuses moved forward in improving graduation rates by reducing economic barriers for our students.

You are a Professor of Psychology at CSU Long Beach. What inspired and motivated you to become a leader in textbook affordability worldwide? Did you have an "aha moment" in Open Education, and if so, when and what was it?

I have many "sayings" that are guiding principles for my career and life. One is,

"Talent is equally distributed around the world but opportunity is not." My belief is that education is the means to provide that opportunity for people to develop their talents, and free access to education opens learning opportunities for all. Economic barriers are powerful barriers to people developing their talents, and poverty produces many other barriers for people. Seeing so many people around the world who did not have access to learning resources was and is "painful" to me. Helping resolve these challenges is a way for me to "give a gift and not a burden" (another one of my principles). The aha moments occur when you see the joy of learning opportunities in the eyes of people whose circumstances have denied their talents. I recognize my good fortune. Seeing others get what they need to develop their talents is motivating to my core.

"Talent is equally distributed around the world but opportunity is not. My belief is that education is the means to provide that opportunity for people to develop their talents, and free access to education opens learning opportunities for all."

What do you see as the future of the Open Movement as it affects students in California? And what about the future of commercial textbooks?

The Open Movement is far from a singular movement. Sometimes, I have found a level of intolerance of alternative perspectives among members of the "open movement," which, in my opinion, at times, reeks of hypocrisy. I have also seen the lack of proper attribution of strategies we have developed in MERLOT and developed by others when adopted by others. Tolerance, recognition, and inclusion will need to be more embedded in the culture of the "Open Movement" as it moves forward. The current culture in the U.S. is not valuing and facilitating these principles. The leadership and work being produced by Opened Culture is how I hope the "open movement"

moves forward. Under the leadership of Dr. Angela Gunder, organizational change management processes, tools, and communities are being offered for adoption and adaptation in sustainable and scalable ways so educational institutions can create an open educational culture and open education for all.

Open Education is a complex system of Open Educational Resources adopted with Open Educational Practices, enabled with Open Educational Services, within an Open Educational Culture. What underlies all these Open concepts is the inclusive valuing of learning and sharing with respectful, responsible, and kind collaborations between diverse individuals and communities of people who are driving toward equitable opportunities and outcomes for all. For Open Education to be sustainable, there must be a business model that will support the real costs of an open educational culture so partnerships with commercial providers is an essential strategy. For this reason, the name of the CSU's initiative was Affordable Learning Solutions and not some form of an OER initiative.

Commercial textbook providers are already moving beyond the text in a book format and focusing on effective learning experiences that result in sustained learning outcomes. With AI maturing quickly, learning resources will not be one-size-fits-all (e.g., a textbook) but custom tailoring of learning experiences for the individual. Commercial providers (publishers, ed tech companies, etc.) are moving quickly in this direction and have the resources to make the needed investments in developing these applications. The "Open Movement" is not funded to a level that will enable immediate and significant investment in AI. Partnerships will be needed for the "open movement" to move forward in the rapidly changing AI ecosystem.

Over the last three decades, what OER project was a powerful idea? What happened to it?

GLOBE: Global Learning Object Brokered Exchange was an international consortium of OER-minded organizations from Europe, Japan, Australia, Canada, and the U.S.

GLOBE was intended to be a consortium of online services and tools that would provide an integrated search of learning objects for individuals and educational institutions worldwide. The consortium would provide a distributed network of learning objects that meet quality standards. By sharing the resources through a federated search, strategic alliances and technical interfaces would need only be made once, with GLOBE benefitting from these partnerships.

The collaboration was wonderful. We outlined international metadata standards for sharing information. MERLOT organized the first two meetings of the Stewardship Council, including myself representing MERLOT and the U.S., plus a team of outstanding people:

- Erik Duval, ARIADNE (Europe-Belgium)

- Garry Putland, EdNA Online (Australia)
- Doug MacLeod, eduSource (Canada)
- Gerry Hanley, MERLOT (U.S.A.)
- Tsuneo Yamada, NIME (Japan)

GLOBE lasted for about eight years, with most of the original group collaborating for about the first six years, with additional organizations joining the project in the later years. There was a strong, personal connection that kept us going, but in time, the federated search technologies were difficult to maintain across many repositories, the limited resources with changing economic times, and the organizational pressures to focus on their own "market" rather than global collaboration for the global good led to GLOBE dissolving as an organization and technology strategy (my opinion). Having written the early business plans for GLOBE, I still believe its mission is the right one. OCLC's WorldCat for library resources and MERLOT SMART Search, where we search for about eighty other open libraries simultaneously, are examples of programs that serve a similar mission. One last comment about GLOBE: I am so grateful to have made friends with Erik (who passed away from cancer), Garry, and Tsuneo, who broadened my worldview of education and continue to inspire me to work for global collaborations and outcomes.

What do you hope your legacy will be?

That educators and all the non-profit and for-profit partners supporting education act with kindness and caring for opening learning for all in ways that produce sustainable living wages for all.

Image description: Headshot of Dr. Gerry Hanley, smiling, against a neutral off-white background.

Media Attributions

- Gerry Hanley

5

Barbara Illowsky

Dr. Barbara Illowsky is co-author of Introductory Statistics and Introductory Business Statistics, published by OpenStax. Open Education Global awarded her its 2013 International Educator ACE Award, and she later served on its Board of Directors. She was the initial Project Director for the Community College Consortium for OER as well as the first OER and Innovation Fellow for the Michelson 20MM Foundation. It was a privilege to turn the spotlight on our interviewer of the other subjects in this volume. (This interview was conducted by Judith Sebesta.)

Did you have an "aha moment" in Open Education, and if so, when and what was it?

My "aha moment" developed over time. My co-author and I were self-publishing Collaborative Statistics in the 1990s (we had purchased the rights back from the commercial publisher) so that we could keep the cost of the textbook low. I knew that textbook costs were a barrier for students. At that time, very few faculty and students had internet access or email addresses. About ten years later, in 2005 or so, my then-Chancellor at the Foothill-DeAnza Community College District, Dr. Martha Kanter, asked me to join her for a meeting at the Creative Commons headquarters in San Francisco. After that meeting, she took me to Rice University for the Connexions (now OpenStax) Conference. In addition to the brilliant faculty from around the world who I encountered, I met another brilliant person, Nicole Allen, who, as a recent college graduate, was then working for Student PIRGs. Via my long discussions with Nicole, Dr. Kanter, Hal Plotkin (then on my district's Board of Directors), and Dr. Rich Baraniuk, Dr. Sidney Burress, and Kathy Fletcher of Rice University, my "aha" took shape. I came to realize how much was possible in serving students. At that point, I was focused on the cost savings for students. It was later that I realized all the additional benefits of Open Education.

"I came to realize how much was possible in serving students. At that point, I was focused on

the cost savings for students. It was later that I realized all the additional benefits of Open Education."

You hold a Ph.D. in Education with a specialization in Instructional Design for Online Learning. How has this specialization influenced your work in Open Education?

By the late 1990s, I had been teaching online for quite a while. My co-author, Susan Dean, and I developed De Anza's first interactive, online course. It was not just posted pdf files with videos. We engaged in professional development to learn how to make the course as accessible as we could. The course won awards in California and became a model for other faculty. We made it viewable and copyable for anyone. That was around the turn of the millennium and before we knew of OER. I realized that we were doing what we "thought worked" with no research or concrete knowledge to back it up. That's when I decided I would earn my Ph.D. with a concentration in Instructional Design for Online Learning.

One concrete way this specialization influenced my work in Open Education occurred in 2018 when I was the chief architect leading a project with OpenStax to create Canvas shells for the then-38 OpenStax textbooks. The team created accessible open course shells that also provided pedagogy for faculty in teaching online and for students taking their first online course. We embarked on this project for a variety of reasons. The California Community Colleges had adopted Canvas as the Course Management System for all the colleges. More and more faculty were starting to teach online, especially adjunct faculty, some of whom received their teaching assignments with short notice and had never taught online before. These shells were a way to jumpstart the course construction for faculty. We included activities such as a template welcome letter for faculty to update for their students, a section of "how to's" for both students and faculty, and one-stop integration of the OpenStax texts. The welcome letter included blanks for faculty to fill in their tutoring centers, food bank locations, educational diagnostic centers, learning centers, and more. At many colleges, the distance learning offices would include such information and customize the shells for their faculty. These shells became a model for another group to create Blackboard shells. When March 2020 came and COVID shut down on-campus classes, suddenly thousands of faculty were required to move their classes online overnight. I received many emails from faculty around the country thanking us for creating these

shells which, in essence, taught faculty how to teach online.

Your co-authored Introductory Statistics (formally published as Collaborative Statistics, housed at the Connexions repository) and Introductory Business Statistics were among the first texts published by OpenStax. What made you and your co-authors decide to go with OpenStax, as opposed to a commercial publisher?

When we first authored the textbook in the early 1990s, Susan Dean and I were using our college's print shop to create course packs for students. We were approached by several commercial publishers. Our biggest concern was the cost of the book for students. Even then, in the early 1990s, we were well aware of the struggles that students faced in obtaining their education. So many of these students were struggling with food and housing insecurities, transportation, and child care. I realized that the one way that I could make their lives a bit easier was to have the mandatory textbook as low in cost as possible. We agreed to have the textbook published commercially with a contract stipulation that the cost would stay under a certain amount, adjusted annually for inflation. Well, that publishing company was bought by another one. The new company more than doubled the cost of the textbook in one year. That company also was buying other companies and was not interested in our book. My co-author and I paid for the copyright to go back to us. We self-published, keeping the cost low, until around 2006. Collaborative Statistics then became a guinea pig for Connexions to create the first U.S. fully accessible, open textbook. This was a fabulous project funded by The William and Flora Hewlett Foundation and the Maxfield Foundation, with research done by ISKME, support with the High Tech Center Training Unit (for accessibility), and technology done by Kathy Fletcher at Connexions. In my mind, this was the very best decision possible. It is so rewarding to be part of the process and witness the textbook adoption from 5 colleges to over 1000 now through OpenStax.

In 2007, you were one of the founders, with then-Chancellor Dr. Martha Kanter at Foothill-DeAnza Community College District, of the Community College Consortium for OER (CCCOER), serving as its first project director. What was the need you and your co-founders were seeking to address for community colleges at the intersection of the burgeoning field of Open Education?

Dr. Kanter had the vision and founded CCCOER. She asked me, Judy Baker, and Una Daly to take on various leadership components. My role as project director was to grow the consortium so that we could build a group of community colleges that wanted to work together and support each other to reduce the cost burden for students. Major funding for Open Education had gone to MIT, Carnegie Mellon, and

Rice Universities. Those universities could support the infrastructure to build the field. They did an amazing job at opening up knowledge worldwide. People around the world who previously did not have access to research universities suddenly were able to work independently to gain tremendous knowledge. However, in the United States it is the community college students who struggle the most financially in paying for their textbooks and education. We knew that if we could reduce and hopefully eliminate textbook costs, we would make a huge impact on millions of students. We were all trying to fill the gap left after students paid for tuition or received tuition waivers and what prevented those students from remaining in college. At that early point in time, I was concentrating on Open Education as eliminating a financial burden for students. I wasn't yet thinking about how it can promote active learning and teaching.

"We knew that if we could reduce and hopefully eliminate textbook costs, we would make a huge impact on millions of students. We were all trying to fill the gap left after students paid for tuition or received tuition waivers and what prevented those students from remaining in college."

You served on the Board of Directors for OE Global. Can you discuss some of the benefits for California community college staff, faculty, and administrators of a global perspective on the field of Open Education?

In many ways, community college faculty and staff lead a very isolated and sheltered professional existence. Our mission and duty are to educate our students and prepare them for transfer and/or the workforce. Few of us engage in active

research as our full load is teaching, and research is not part of our duties and generally not part of the tenure or promotion process. The same goes for publishing. My own research and publishing were considered a "side gig"—something I participated in during my free time. I was evaluated, as most community college faculty are, on my teaching and committee work. Sometimes, attending conferences counted positively, but funding for conferences was limited and typically only covered a portion of my expenses.

I was already a California leader in both Open and Basic Skills (developmental mathematics, English, ESL) community college education. On the Board of Directors of a global organization, I learned so much from my international colleagues and how worldwide projects vary. I was able to bring that knowledge back to serve the state and North America. In fact, it was on a bus in Bali sitting with Cable Green, one of my heroes, friends, and (now former) international leader for Creative Commons, on the way to meet the King of Bali as part of OE Global 2013, that I asked Cable what I could do to improve open access for California Community Colleges. I was on loan to our statewide Chancellor's Office at the time and was the only person in the office involved in Open Education or who understood CC licensing. Brilliantly, Cable suggested we work together to have the Chancellor's Office Board of Governors adopt language that would require all grants it awarded to have CC BY attribution license for any works developed. As public grants are funded by taxpayer dollars, that made complete sense.

Additionally, I worked with Paul Stacey (then at Creative Commons and later Executive Director of OE Global) to draft the language that Hal Plotkin wrote for the Trade Adjustment Assistance Community College Career Training Grants grants (TACCCT, $2 billion over 4 years) while he was the Senior Policy Analyst at the U.S. Department of Education under President Obama. The TACCCT grants were the first federal grant program to ever require use of CC BY licensing. At the time, the California Community College system became the largest system in North America to require such licensing. This was a huge shift for California, which then became the model for other states and systems to follow. It also opened the doors to ZTC funding statewide and saved taxpayers' money by not having duplicate projects funded and then hidden away.

"At the time, the California Community College system became the largest system in

North America to require such licensing. This was a huge shift for California, which then became the model for other states and systems to follow. It also opened the doors to ZTC funding statewide and saved taxpayers' money by not having duplicate projects funded and then hidden away."

I also learned the practices internationally through my OE Global Board of Directors colleagues. I was able to bring their wisdom back into practice. None of this would have been possible if I had not become internationally involved.

In yet another groundbreaking contribution to our field, you were the first OER and Innovation Fellow for the Michelson 20MM Foundation. How did that benefit advancing your work in the field?

I am eternally grateful to Dr. Gary Michelson, founder and funder of the Michelson 20MM Foundation. It was an honor and privilege to have this fellowship created for me to serve in for two years and then for others to follow. Part of my duties were advocating for more OER/ZTC legislation and funding in my state. Thanks to this fellowship, I was invited to be "in the room where it happens" (quote from the musical Hamilton). I had the time and resources to travel around California advocating for increased OER/ZTC at conferences for the CCC, CSU, UC, and high school dual enrollment programs. With Dr. Michelson's backing, I was included in high level meetings, as well as high level officials accepting my requests for meetings. Via these conferences and meetings, I learned more and more that I could put into action.

What has been the influence of this foundation and others, like Hewlett, on Open Education? What are the opportunities and challenges for philanthropy and other funding for our movement in the future?

Without the William and Flora Hewlett Foundation's generosity and visionary practices by Dr. Marshall Smith, then Director of Educational Programs, and Dr. Cathy

Casserly, then Education Program Officer, who provided millions of dollars of funding for OER projects, as well as promoting OER, and supporting faculty, research, and technology, there would be no OER movement. There would be no OE Global, no massive sharing of resources, no OpenStax, no OER Courseware, no wide-scale movement. Because of the continued support of the Hewlett Foundation, the Michelson 20MM Foundation, and some other foundations, the collective "we" have saved students billions of dollars internationally, while affording students the opportunity to achieve their educational goals and contribute back to society. Those philanthropic foundations provided the resources to continue the work and provide mentoring and guidance along the way. We will always be indebted to them.

"Because of the continued support of the Hewlett Foundation, the Michelson 20MM Foundation, and some other foundations, the collective 'we' have saved students billions of dollars internationally, while affording students the opportunity to achieve their educational goals and contribute back to society."

In 2013, you received the OCW Consortium (which became OE Global) Educator Award. Can you share your thoughts on the importance of recognizing contributions of professionals, like yourself, to our field?

When I was awarded the Educator Award, it was the third year of the award. The previous two years, the award went to university faculty from MIT (first year) and Spain (second year). They were from highly esteemed universities. And then came me: a community college faculty member with no international recognition, although

Introductory Statistics (then called Collaborative Statistics) was being used worldwide, thanks to the work of Connexions. I was known in California for CCCOER, the open textbook, and work I had assisted with at the state legislature on promoting and supporting OER. For me, this award was on behalf of the importance of the ground-level work of those of us affecting students day-to-day who were desperately wanting to stay in school and afford their textbooks. The award truly recognized the many community college folks who worked so hard on OER efforts: Una Daly, James Glapa-Grossklag, Dr. Judy Baker, Dr. Martha Kanter, and the visionary Hal Plotkin. All of these people are mentors to me and deserve the recognition of being leaders in this work. You know these names because of all the good they've done for all of us.

The award opened the world to what community colleges are and how we serve the "top 100%" of applicants, as Dr. Kanter would say. We were starting to be taken seriously by universities for our OER work, by foundations who typically supported the top-tier research universities, and by the government for our work. I remember at the Bali conference meeting an internationally recognized scholar from South America. When I tried to chat with him on the first day of the conference, he basically dismissed me. After I received the award, he made a point to come and talk with me several times. He epitomized how I previously felt that university faculty, especially those from top research universities, saw those of us in the community college systems. The award "proved" that we were partners in the OER/ZTC endeavor, not support staff. I must add that, even though such patronizing was and is a common experience for community college faculty, over the years we are becoming more valued and respected. I truly believe that those people I described represent a small minority of university professors who we collegially work with on various projects.

What do you think are the key factors that led to California playing such a key role in the Open Education landscape, culminating in California's historic investment of $115M in the California Zero Textbook Cost (ZTC) Grant Program?

In previous years, California approved a one-time $5 million allocation for OER/ZTC funding. I had played a small role in those funding allocations. Then, as part of my fellowship with The Michelson 20MM Foundation, we had been advocating for a jump to $15 million for the 2020-2021 California budget. Governor Newsom allocated funds in his preliminary budget. He even gave the California Community Colleges a shout-out in his budget release for our OER/ZTC work. We all know what happened in March 2020, so by the time of the May Revise to the budget, COVID funding needs became a priority. When OER/ZTC funding went back into the budget, it was put in at $115 million, not $15 million. I was not part of that process. Mostly, I think that the reports of our systems, especially James Glapa-Grossklag's ZTC report showing that an

investment of $5 million metamorphosed into $42 million in students' and taxpayers' savings, was instrumental. The Academic Senate for California Community Colleges OERI work showed how faculty from around the state came together to develop OER, mentoring each other, and building up support. However, this investment by California would not have happened without many more political influencers than us. Of course, there were major donors behind the scenes, hidden from us, doing what they do best, advocating for what's "right."

You have been a groundbreaking Open and Affordable Education advocate in California and beyond and hold a unique perspective from multiple points of view and organizations, from the institution to funders, to supporting non-profits. From this perspective, what is the significance of the California ZTC Grant Program for community colleges in the state – and also for Open Education in general?

I mentor colleges and universities around the U.S. in converting from commercial textbooks to OER and developing ZTC programs. An advantage of "being around for so long" is that I have access to multiple people, organizations, and institutions. I know what's out there and can bring those resources to the schools I mentor both inside and outside of California. So many people around the world are doing amazing work. We don't need to replicate

"This may sound a bit hokey, but I truly believe that much of the world's problems can be solved with an educated population for all, not just those with enough financial security to achieve it."

each other's work. We can build upon foundations and achieve so much more. I see that in California, the U.S., and internationally. The ZTC Grant Program gives us the opportunity to build upon the great work that has already been done so that funds can go to new resources. This may sound a bit hokey, but I truly believe that much of the world's problems can be solved with an educated population for all, not just those with enough financial security to achieve it.

Image description: Headshot of Dr. Barbara Illowsky, smiling, sitting on a bench in front of a window.

Media Attributions

- Barbara Illowsky

6

Martha Kanter

Dr. Martha Kanter served as the Foothill-De Anza Community College District Chancellor and President Obama's former Under Secretary of Education.

As Chancellor of Foothill-De Anza Community College District and with so many diverse responsibilities, what sparked your interest in Open Educational Resources?

In 1993, when I became the President of De Anza College, I was introduced to Mosaic, the early web browser that Marc Andreessen, an undergraduate in Computer Science at the University of Illinois-Urbana Champaign, developed with a few of his fellow students. It was the first web browser with a graphical interface, freely available for public use. Back then, following the use of Mosaic by thousands of people around the world, Mosaic was instrumental in creating what is now commonly known as the World Wide Web (WWW). De Anza College grew up amid the burgeoning tech industry, quickly using the browser for communications and research. I got to know some early Mosaic leaders and saw Mosaic transformed into Netscape and AOL, all of which I used over those ten years.

That Mosaic was freely available world-wide caught my attention, as did the Internet itself. I've always been fascinated with the development of new technologies, and I am, by nature, a curious person. I saw tremendous value in keeping abreast of the emerging uses and possibilities of technology and the Internet as tools for the future of education.

Fast forward to a decade later. Research, materials, and communications were a few benefits I saw as so many faculty and staff at my college quickly came to use the web for educational purposes. They educated me about the possibilities for higher education. To keep up with all of this, I constantly read about what was new in the tech world in Wired Magazine and through the many tech experts I met over those years (e.g., Gordon Moore, Steve Wozniak, David Packard, Steve Jobs, etc.).

In 2003, I became the Chancellor of the Foothill-De Anza Community College District, and to my good fortune, Hal Plotkin was elected to the Board by the public as a new District Trustee. Like me, Hal was similarly inspired over those years, and we collaborated about how to leverage the Internet to provide free textbooks and materials for students. During my ten years at De Anza, I was guided by a few of the Computer Science and Math faculty. I quickly learned that in 2001, you, Barbara, and

Susan Dean created Collaborative Statistics and were tirelessly looking for ways to bring down spiraling textbook costs. In partnership with Foothill-De Anza, their book became freely available to all students, and it took off to more faculty who were interested in helping students afford textbooks.

You have been an ardent supporter of Rice University's Connexions (forerunner to OpenStax), a project to create an ADA-compliant, interactive, open college textbook. Please explain how that came about, your role, and the project's intent.

As background, President Johnson signed the Civil Rights Act in 1964 when I was in high school. Subsequently, President Nixon signed the Rehabilitation Act of 1973 when I was earning my Master's degree in Clinical Psychology and Public Practice [at Harvard University] and became an advocate for strengthening the legislation to include various protected classes of people with disabilities. G.W. Bush signed amendments to this Act.

I had been an advocate for this legislation for many years, and in 1985, I had the good fortune to marry Carl Brown, a formidable, brilliant man and computer scientist. He had severe disabilities. He often said to his students: "Your disability doesn't define who you are." In 1998, President Clinton signed amendments to the Act, ensuring access with accommodations to websites, hardware, and software for people with disabilities across all federal agencies, K-12 schools, and higher education institutions.

It was in the late 1990s that I met Richard Baraniuk, Ph.D., professor of Electrical and Computer Engineering, and then in 2008, Joel Thierstein, Ph.D., in Telecommunications and Associate Provost for Innovative Scholarly Communication, both at Rice University in Texas. Richard had developed Connexions to experiment with and house the origin of Open Educational Resources. Joel became the Executive Director of Connexions, and together they teamed up to expand Connexions, now known as OpenStax, a nonprofit organization housed at Rice University. Over time, they created a national repository of free textbooks, open-source software, and training materials with the tagline of "Learning resources for all!"

Having had many decades of addressing and making college books, materials, and facilities accessible to community college students with disabilities (e.g., low-vision, blind, physically disabled, learning disabled, etc.) and inspired by the Americans with Disabilities Act compliance requirement, I worked with two De Anza College faculty, you and Susan Dean, who had written Collaborative Statistics after years of working on their shared goal to reduce the price of books. I convinced Rich and Joel to make the books and materials accessible for all students. And they did. That textbook is said to be the first open, accessible college textbook in the U.S.

Describe your role, reasoning, and encouragement for the Foothill-De

Anza CCD Board of Trustees adoption of the first Public Domain (predecessor to Creative Commons) Board Policy for textbooks of any U.S. college or university.

I was convinced that OER had the promise to strengthen teaching and learning while lowering college costs. I loved the premise that acquiring knowledge and skills from a college education or training should be free to all, as high school has been for over a century. I was thrilled to work with Hal Plotkin, who literally drafted the board's OER policy and to expect from our collaboration with OER faculty leaders (you and Dean) that OER would proliferate over time.

"I was convinced that OER had the promise to strengthen teaching and learning while lowering college costs. I loved the premise that acquiring knowledge and skills from a college education or training should be free to all, as high school has been for over a century."

What was your "A-ha" moment that created the path for your District moving towards adoption of open textbooks?

I realized that having Policy 6141, the first policy approved by the Foothill-De Anza Board of Trustees for use in California and the nation, offered a pathway to reduce college costs, enabling more students to succeed. I realized that we had a small coalition of a trustee champion, faculty champions, student beneficiaries, a simple way to track college cost reduction, and a president, all who were passionate about taking OER forward, scaling it to other colleges and universities, and most importantly who trusted each other to work together to share the power and benefits of OER with faculty and students.

In 2007, you founded the Community College Consortium for Open Educational Resources. What was your purpose in creating this

international organization, one that is still in existence, thriving, and has helped several hundred community colleges move towards creating and/or adopting open textbooks?

OER had the promise that libraries have had in the U.S. to be the repositories of books and materials open to all. If faculty leverage OER to create and incorporate other relevant content with attribution, if their books and materials were free to read, share, and update, then we would have a huge opportunity to create free access to knowledge and become an alternative to costly books from which for-profit textbook companies were reaping the spoils. This could impact the secondary markets of used textbooks that were continually out-of-date, making it harder for students to acquire the knowledge and skills in their programs of study. A consortium of OER leaders could offer training, professional development, highlight best practices, and identify OER for use throughout California and beyond. I didn't know how quickly OER creation and course adoptions would grow or what challenges the OER leaders would face, but I believed that a collaborative coalition would, in and for themselves, spur organic OER growth and benefits.

In 2009, you became the U.S. Under Secretary of Education under President Obama. In that role, how were you able to influence U.S. creation and adoption of OER?

Hal Plotkin and I were the Foothill-De Anza OER team. With a prominent example of an OER textbook, Collaborative Statistics, a cadre of other faculty became interested in the model. Our two colleges prioritized faculty leadership and OER staff development. I joined the Obama Administration in 2009 with a broad-based goal to dramatically increase the number of low-income students going to college and bring down college costs, as one of my responsibilities was to oversee Student Financial Aid with two extraordinary FSA executives (Bill Leith and Jim Runcie), and to architect freely open accountability systems (e.g., with James Kvall I became the grandmother of the College Scorecard). I wanted to scale OER and invited Hal to become my senior advisor and to take the lead while I added other priorities to his federal plate. Luckily, Hal said "yes." A year later, I brought Joel Thierstein into the government to architect strategic technology and outcomes plans with government support for higher education and training programs. I have to give all the credit to Hal and Joel for acquiring a national view of the OER growth in community colleges, universities, and the burgeoning use of OER in K-12. The organic and widespread proliferation of OER sites around the country became evidence for another piece of policy making: to keep college affordable by supporting the creation of open knowledge through books and materials that were critical for teaching and learning. We saw firsthand that a national OER network was growing in popularity. Hal was then charged with making all

government agencies' reports and materials open and freely available. He was successful.

"The organic and widespread proliferation of OER sites around the country became evidence for another piece of policy making: to keep college affordable by supporting the creation of open knowledge through books and materials that were critical for teaching and learning. We saw firsthand that a national OER network was growing in popularity."

California, especially the California Community Colleges, has been an international leader in OER adoption. What do you think are the key factors that led to California playing such a key role in the Open Education landscape, culminating in California's historic investment of $115M in the California Zero Textbook Cost (ZTC) Grant Program?

The California faculty who created and used OER paved the way for their statewide Academic Senate to adopt and support OER policy across California. That action led to conversations among the Senate faculty, college presidents, district chancellors, and administrators to make the convincing case to the State Chancellor and Board of Governors to support OER, identifying legislators who could memorialize and fund OER development, and research to demonstrate the benefits in bringing down the cost of books, as one avenue to help student access to college. The early results that directly benefited students led to a series of political leaders passing OER legislation with substantial start-up funding to support the expansion of OER to community

colleges and universities statewide.

What does the research say about the OER outcomes for students and institutions?

I know that the statewide pilot program has been a success, but I haven't seen any national data. My understanding is that most OER evaluations are campus-based and state-based but a national study would be important for OER expansion. The Open Education Group is one of the larger publishers of OER research.

You will leave an amazing legacy in the field of education. What do you feel is your most important accomplishment in students' pursuits to achieve their educational goals?

Students need to learn from faculty across all disciplines and institutions that education paves the way to future success in college, career, and civic responsibility. From numerous student surveys, books, and reports coming from a host of colleges, universities, and think tanks (conservative and liberal), financing college is the top priority for and from the nation's students and colleges. "Not enough money" was—and is today—the cry from students across the nation for government at all levels to take responsibility for reducing college costs. It's important to note that half of the 20 million undergraduate students are Pell grant recipients, coming to postsecondary education from families earning 200% or less of the poverty rate (e.g., from the Federal Poverty Level 2025 Chart: the annual household income for 1 = $31,300). I like to think in retrospect that I played a significant role in reducing college costs, but the costs keep escalating despite our best efforts."I can say that we increased by 50% the number of low-income students enrolling in college." But persisting in college is a quagmire of higher college costs, the student loan companies, and the lack of a free education for all, especially in public community colleges and universities. Making books and materials available at no cost through OER is one piece of the puzzle, but adding . . . transportation, housing, childcare, and more [as] a holistic legacy is my wish for our country.

What do you hope your personal legacy will be?

That I made a significant difference in the lives of students I taught, the faculty and staff I respected and supported, the institutions I led, and higher education in general, to enable the top 100% of students to have the opportunity and critical resources to go to and succeed in college or technical training, benefitting from excellent faculty, without the barriers of college costs, and ultimately with good careers, all of which will afford them economic, social, and civic mobility throughout their lives.

Image description: Headshot of Martha Kanter, smiling, with people standing in the background.

Media Attributions

- Martha Kanter

7

Gary K. Michelson

Dr. Gary K. Michelson, founder and co-chair of the Michelson 20MM Foundation, is a self-made billionaire and visionary philanthropist whose work has significantly advanced the Open Educational Resources (OER) and Zero Textbook Cost (ZTC) movements. In this conversation, we have the privilege of exploring his journey and the impact of his contributions to affordable education.

You are a distinguished Board Certified Orthopedic Spinal Surgeon, world-renowned as a surgical innovator, and the most prolific inventor in medical history. Despite having nearly 1,000 patents worldwide to your name, you came from humble beginnings, putting yourself through college and medical school. How did that experience in your early life affect your philanthropic activities?

The challenge of affording textbooks is one I know well, given my time as a student at Temple University in Philadelphia. Temple was originally a night school for working adults; the mascot is still the Owl in honor of these students. I was one of the many students balancing tuition, fees, work, and life's responsibilities as an undergraduate and graduate medical student. Today, most of California's students, especially at community colleges, are living the same reality: working while earning their degrees, balancing the cost of higher education with the costs of getting by. Now I can help make things a little more fair for students through the philanthropies I've founded.

Before focusing on OER, you funded textbook grants at Santa Ana College. Please share that story and how it influenced you to move larger into OER philanthropy.

At the time, one of the top reasons high-achieving students were failing to return for their second year of college was attributed to textbook costs. When I learned that these driven, impressive students were prevented from continuing to succeed in the classroom due to the high cost of course materials, I recalled my own experience as a student. As a testament to the good nature of humanity, college professors were using their own money to help their students purchase textbooks—an inspiring and commendable action. Still, I knew both the students and professors deserved more. Given that preventable reality, it was logical to set up a scholarship for the students. At the same time, however, we needed a sustainable solution for students across the state, rather than a band-aid on one campus.

"Today, most of California's students, especially at community colleges, are . . . working while earning their degrees, balancing the cost of higher education with the costs of getting by. Now I can help make things a little more fair for students through the philanthropies I've founded."

As I learned more about the root issues in course material affordability, it became clear that the textbook market itself is something of a racket. Then, five companies controlled 80% of the textbook marketplace; now, that already small number has dropped to three. It was evident that textbook publishers were doing everything they could to drive up costs and push out competition; we saw this first with releasing new editions every chance they got and then by forcing students to buy expensive digital access codes to turn in their homework. I knew we needed big solutions to solve a problem of this scale, and fortunately, we found other committed philanthropic and institutional partners ready to partner.

The project that would go on to become OpenStax started with a proposal to create high-quality course materials, written by experts in their field, and then released under an open license. This meant students and educators could access them for free. This was precisely the kind of innovative and holistic solution the problem called for at the time. We awarded OpenStax their first large grant and have been working to support OER and a healthier textbook marketplace ever since.

Your work to reduce textbook costs for college students extends beyond four-year systems to include a significant focus on community college students, systems-impacted students, and those who struggle to meet their basic needs. Please share more on these initiatives and the motivation behind them?

Michelson 20MM Foundation, or 20 Million Minds, is aptly named in recognition of

the 20 million students enrolled in higher education when the foundation was created. Our goal is to make education and employment opportunities accessible to all. Doing so requires thinking critically about the barriers and challenges students face while also ensuring we meet them where they are.

As an example, the California Community College (CCC) System is the largest system of higher education in the country, with 2.1 million students across 116 colleges. Many CCC students are working, taking care of family members, and juggling a myriad of responsibilities while attaining their degrees. Some of the challenges they face may include not having reliable and affordable access to the internet at home, navigating food and housing insecurity, or striving to pursue an education while going through the justice system. By working with the CCC system and directly addressing these known challenges, we can have an outsized impact on our communities and students.

We are also proud to work with the California State University (CSU) and University of California (UC) Systems, as well as nonprofit organizations that support students and our mission. To make life less unfair, we must focus on students who are experiencing systemic inequities in their pursuit of education and employment.

Textbook affordability via OER is one of the five focus areas of the Michelson 20MM Foundation. How does this focus manifest itself in the day-to-day foundation operations?

OER remains a consistent priority for the foundation. In addition to the annual OER Spark Grants funding cycle, which is a just-in-time grant opportunity, we also have a small team dedicated to OER advocacy, research, and collaboration. The team, which includes a seasoned program manager and student fellows, marries the boots-on-the-ground experience with strategic, scalable insights. We also call in experts from across the OER world—faculty, thought leaders, and more—to advise our work. Last year, as an example, a Michelson 20MM student fellow delivered public comment to the Department of Education concerning their rules change process to regulate automatic textbook billing. The same fellow also had an opinion piece published in The Hill. As campuses continue to implement Governor Newsom's investment in ZTC programs, we're excited to further our focus on scalable OER solutions.

Michelson 20MM offers "Spark Grants" with each cycle having a different focus. Why is the funding opportunity up to $25,000? How do those smaller grants make large impacts and why do the grants generally focus on organizations working in or affecting California?

We observed a noticeable gap in the funding ecosystem: just-in-time, targeted, impactful funding that can create catalytic change while remaining flexible. As anyone who has applied for a larger grant knows, funding opportunities can take months or years to reach the people doing the work. Such grants usually have long-term upkeep

as well. Spark Grants seek to narrow the strategic focus so that many of the funded projects can have an outsized impact in their field. For example, the grant to write U.S. PIRG's original Automatic Textbook Billing report created an avalanche of responses from individual actions to coalitions to class-action lawsuits.

"On a more personal note, California is important to me because it is my home. The people who benefit from the work we fund are a part of my community."

Our focus on California stems from both strategic and personal motivations. California provides a unique ecosystem, considering the size of the CCC system, the caliber of our public universities, and the state's commitment to advancing equity. Oftentimes, projects proven to succeed here can be scaled across other states, which is one of the things we consider before awarding a Spark Grant. On a more personal note, California is important to me because it is my home. The people who benefit from the work we fund are a part of my community.

When you created the textbook The Intangible Advantage: Understanding Intellectual Property in the New Economy in 2016, you were already funding OER programs and advocating for legislation in CA to reduce textbook expenses for college students. Why did you decide to release the digital version of the textbook, a book about protecting people's intellectual property, free of charge?

The knowledge to protect one's invention should not be restricted to those who can afford a law degree or an intellectual property college course. Genius, creativity, and drive can originate anywhere—from the laboratories of Fortune 500 medical companies to the imaginations of college freshmen. By working with OpenStax to make The Intangible Advantage: Understanding Intellectual Property in the New Economy available to anyone who needs it, we want everyone to have the ability to capitalize on their creativity and drive. To date, numerous individuals have downloaded the textbook, which is a true testament to the power of both IP and OER.

Our work reflects a core belief: creators can decide what to do with their work.

There's no contradiction between open and traditional copyright; it's about giving people the options and freedom to choose how their work is used. In the case of this textbook, it's important to get the materials in as many hands as possible, and OpenStax and OER helped us reach that goal.

What has been the greatest influence of your foundation on open education and textbook affordability? What are the opportunities and challenges for philanthropy and other funding for the movement in the future?

The Foundation's focus on not only textbook affordability but also all of our focus areas is to make higher education accessible to all students. We look for ways to break down barriers that hold students back and build pathways for students to access their potential. A student who cannot access necessary materials due to cost or technological barriers cannot reach their full potential in that course.

To fix this, we must first acknowledge the broken nature of the $10B textbook market and then use a systems approach to revolutionize it. It is not enough to support OER as a solution; we need to create a fair environment through policy advocacy, research, and grant-making.

"It is not enough to support OER as a solution; we need to create a fair environment through policy advocacy, research, and grant-making."

Proliferating OER solutions requires taking on sizable challenges—funding cuts, large corporations squeezing the market, consolidating competition, and threats to the future of higher education in general, to name a few. Despite these challenges, innovative solutions are already taking root and exemplify the opportunity to spark change. The CCC system's ZTC program is proof that OER can be a scalable and sustainable solution to course material affordability. There's no reason that ZTC degrees should stop within the CCC system; students should be able to transfer into CSUs and UCs to finish their ZTC degrees. This will take investment, vision, and hard work, but it's a huge opportunity.

What do you think are the key factors that led to California playing such

a key role in the Open Education landscape, culminating in California's historic investment of $115M in the California Zero Textbook Cost (ZTC) Grant Program?

Historically, California has always valued innovative solutions. Early adopters like College of the Canyons, De Anza College, and other campuses demonstrated that OER can be scalable and sustainable. The state also has a history of passing legislation to support OER, expand price transparency, and protect students in the textbook space. Of course, such legislation doesn't simply happen—individuals, organizations, and systems of higher education worked for years to make this a reality.

The 2016 ZTC pilot, funded with $5 million, yielded a 7:1 return on investment in student savings. It created ZTC degrees on approximately a quarter of the CCC campuses, resulting in improved grades and high student achievement. It was a success due to the faculty, administrators, and colleges that made it happen. It wasn't enough, though. Every student in California deserves to have something impactful on their campus.

Governor Newsom's $115 million investment in ZTC degrees was a smart way to scale a transformative solution. The investment is paying off, too. This fall, the Chancellor's Office has announced that 379 ZTC degrees will be available across the state.

When you look back at all the things you have accomplished, especially in OER and ZTC degrees, what specifically do you feel has had the greatest effect on improving the lives of California Community College students?

"While the individual efforts of hundreds of faculty, staff, and students cannot be overstated, the success that California has seen in this space would not have been possible without 15 years of accumulating supportive policies."

While the individual efforts of hundreds of faculty, staff, and students cannot be overstated, the success that California has seen in this space would not have been possible without 15 years of accumulating supportive policies. These wins—often through internal systems policies, but primarily through the California Legislature—have buttressed the growth of OER in the state. Laws that encouraged faculty to consider cost when assigning textbooks, labeling requirements for zero and low textbook costs in the online schedule, and funding programs through the state budget are some of the policy wins that fostered the growth of ZTC across the CCC system.

What do you hope will be your legacy?

I hope my legacy will be marked by helping make the world less unfair. Whether it is access to educational materials, basic needs, reliable internet, a second chance, or the knowledge to safeguard one's inventions, I hope California becomes a state in which every person can succeed without having to overcome systemic barriers. That's the world I believe in, and that's the one I'll continue working to build.

Image description: Dr. Gary K. Michelson, smiling, sitting on a sofa against a neutral wall with decorative items.

Media Attributions

- Gary Michelson

8

Lisa Petrides

Dr. Lisa Petrides is an international scholar and open education expert who has helped lead the development of tools and strategies to create and support the field of open educational practice. She is CEO and founder of the Institute for the Study of Knowledge Management in Education (ISKME), a global nonprofit dedicated to making learning and knowledge-sharing participatory and open for all. Dr. Petrides also serves as an elected official on the Board of Trustees of the San Mateo Community College District. It is a great honor and privilege to interview Dr. Petrides.

You were a professor at Columbia University Teachers College, in New York City, where you taught information science and research methods to masters and doctoral students who aspired to senior levels of leadership in the region's K-12 and higher education systems and institutions. Can you tell us a bit about the trajectory that led you from one of the top-rated research universities in the country to founding a small California education nonprofit focused on making learning and knowledge sharing participatory, equitable, and open?

What many people don't know is that before receiving my doctorate in education policy from Stanford University in 1996, I had graduated from an MBA program with an emphasis in information science and organizational change. I had developed a keen interest in the ways that people within organizations used data and information to support their decision-making processes—whether it was in the business or services sector. As the daughter of a head-start teacher turned public school librarian, it may not be too surprising that my interests and passion for access to education influenced my decision to apply these theories and concepts of information science to education policy when I made the decision to return to graduate school.

At Teachers College, Columbia University, in addition to teaching the department's survey courses on research methods, I was also teaching classes that were a bit unusual for a graduate school of education back in 1997. The courses were named things like "Information Systems for Decision Making in Higher Education." In these classes, I had students, for example, exploring the differences in web search results using 12 different browsers, and learning to use data to help them redefine the problems they were trying to solve instead of simply using data for compliance purposes. This was not the norm at the time in terms of how people thought about

data and information in the education sector. My own research and writing led me to explore knowledge management theories, which were not about how to manage knowledge, but instead examined processes that could be put into place that would create a feedback cycle of sensemaking and continuous improvement.

Fast forward to the early 2000s, and it was clear that information technology and education were quickly becoming inextricably entwined. There was an increasing number of large-scale business investments made to support commercial efforts related not only to the management of education, but to the offering of education itself as a consumable product, which, to me, felt to be in direct conflict with the ideals of public education. My research and teaching were trying to counter that, but I also came to feel that the relatively slow pace of adoption of new theories in academia would never be able to keep up with this fast pace of change that was taking place. As someone who had been studying these phenomena for nearly a decade and listening attentively to the stories and challenges of my graduate students, I decided that my contribution was more likely to have a greater impact if I could put these theories into practice outside of academia. Hence, this guided my decision to try and make a go at forming a research institute that could place people and processes at the center of the technological changes that were taking place in education. An early attempt at articulating this was the development of attributes of what a "thinking school" could look like, and was written up in a journal article I co-authored entitled Knowledge Management for School Leaders: An Ecological Framework for Thinking Schools.

"I decided that my contribution was more likely to have a greater impact if I could put these theories into practice outside of academia . . . forming a research institute that could place people and processes at the center of the technological changes that were

taking place in education."

In 2001, I decided to take a year-long leave as a Visiting Scholar at Stanford University to explore the viability of creating an education institute that committed itself to "turning knowledge into action" (which was ISKME's first tagline)—at a time when Silicon Valley itself was a burgeoning hotbed of new technologies impacted by the emerging pervasiveness of the Internet.

How did you first become involved in Open Education? What prompted you to add it to your mission and focus?

During that year, I was a Visiting Scholar at Stanford, and I was also finishing up a research grant that was looking at how an increased statewide interest in measuring student success was playing out at one large multi-campus community college district in California. It was creating pressure on administrators and institutional research offices to reconsider not only who needed access to what kinds of information, but also how data and information were used in decision-making.

I took advantage of my time back in Silicon Valley to go and speak to as many people as I could—educators and administrators in schools, colleges, and universities; technology start-ups; and a handful of funders—about the feasibility of creating a nonprofit research institute that would look at the use of information and knowledge collaboration across K12 and higher education institutions. To my surprise, not one of them told me I was crazy. Instead, in conversation after conversation, they would excitedly tell me that I should go talk to so-and-so at another organization, typically researchers, designers, or entrepreneurs who were innovating in the field of information technologies. One venture capitalist said that when I was ready to make the move from nonprofit to industry, to come back for seed investment, but this would have meant leaving behind my desire to work within a mission-driven purpose. These conversations were somewhat in contrast to what I had been hearing on the East Coast from mostly academic colleagues, who iterated that a tenure-seeking professor would be better off focusing on more well-established disciplines in the field.

During that year, I went to visit Mike Smith, my former Dean from graduate school at Stanford, to get his take on my idea of creating a research institute. He had just started a new position as director of the education program at the William and Flora Hewlett Foundation. He was thoughtful and reflective and talked about his own experience in the area of computer content analysis a few decades earlier, which was similar in some ways. We had a terrific conversation, and I knew I was on to something. However, when I asked him if he would be able to provide funding for me

to incubate this idea, he passed, but encouraged me to stay in touch if and when I did pursue it.

The following year, after having made the decision to leave my academic position at Columbia and incorporate the nonprofit Institute for the Study of Knowledge Management in Education (ISKME) in California, he reached out to tell me that the Hewlett Foundation was in early phases of starting to fund something called open educational resources, or OER, and thought I might be interested to hear more about it. He invited me in 2002 to a small convening of about 50 people who were beginning to imagine what types of incentives and policies might be used to catalyze this initiative.

During the early years at ISKME, we built on the research and teaching I had been doing as a professor at Teachers College, Columbia University, conducting studies that had practical applications for data and information use within K-12 school districts, community colleges, and four-year colleges and universities. With a mission to help institutions advance their capacities to use data and information to improve student and institutional success, our goal was to leverage principles of knowledge management to broaden the understanding of how to create a dynamic, sustainable information-driven environment in education organizations and in the organizations that support them. Interestingly, this new work in OER had several parallel aspects, which in some ways have played out even more strongly through the years. Specifically, some of the best applications of information technology and organizational learning in education involve looking at effective practices in using institutional knowledge to strengthen all aspects of decision-making in K-16 education institutions—this is a core aspect of knowledge management, and turns out, central to the practice of OER today.

For example, Mike and his team realized that OER had the potential to transform how teaching and learning took place in education institutions, as he funded some of the first projects to create OER, such as the Monterey Institute for Technology and Education (MITE) and MIT's OpenCourseWare initiative. He was also thinking about how to support the legal process of sharing and adapting content through Creative Commons who were working to create a set of licenses, similar to the types of licenses used in open source software projects. Similar to my work over the past five years, it occurred to me that OER could also be thought of as a type of "information" that people shared in order to impact decisions that could affect teaching and learning within the education sector.

"... OER could also be thought of as a type of

‘information’ that people shared in order to impact decisions that could affect teaching and learning . . . the potential impact of open education on improving access to education could be thought of within the context of leveraging data and information for the public good.”

As the Hewlett Foundation began to fund content creation projects, it began to look at potential areas of high demand, so as to strategically develop courses that would reach the greatest number of students. Not surprisingly, one high enrollment area identified was general education, typically the first two years of courses a student would take at a 4-year college as well as the primary set of courses needed for community college associate degrees. Subsequently, Hewlett funded ISKME in 2003 to conduct an environmental scan of the supply and demand for online developmental education courses for community college students.

And in this way, ISKME’s desire to “turn knowledge into action” was applicable and articulated more specifically to how educators might first search for, discover, and share OER, and in doing so transform how we approach teaching and learning. Ultimately, the potential impact of open education on improving access to education could be thought of within the context of leveraging data and information for the public good.

Describe the development of OER Commons, your award-winning digital public library and collaboration platform that facilitates the discovery and improvement of high-quality digital resources that are free, openly licensed, and available for a diverse range of learners.

The Hewlett Foundation had begun to regularly provide funds for people and organizations to develop OER. It was now 2005. They wanted to know the status of what was happening across these projects that it had funded and what OER topics

were available. What kinds of resources were they? What types of open licenses were being used? Who were the authors? Had any of these resources been used, adapted, or reshared? At this point in time, there were no set standards in the field as to what metadata might be most useful to collect about resources, and to further complicate it, these resources were across multiple platforms. This meant that our first step was to create a huge spreadsheet with fields for various metadata that people might find useful in searching for content.

We brought back to the Foundation a somewhat unwieldy Excel spreadsheet with over two thousand rows of data, and Mike said, "This is impossible to make sense of. Can you think of another way to present it?" I suggested that we put it all in a database that could be easily searched, along with links to the sites where people could access each resource, and he agreed that it was a good idea. When I suggested we could put that database on the internet, he said, "Sure, why not?!" We hired a Plone software developer to put the basic database structure in place and presented it to Mike. He was very excited by it and said, "Okay, let's do something bigger with this." After a beta launch in 2006, we officially launched OER Commons in 2007, the first digital public library of openly licensed educational materials.

The following excerpt is from our proposal to Hewlett submitted in 2005, and I think it is quite fascinating to read nearly two decades later. The problem statement is followed by the project's purpose, which, while groundbreaking at the time, in some ways is still quite familiar today:

> "There are likely over two thousand OER courses currently posted on the Internet, and many more learning objects. They exist as stand-alone files, or in the dozens and dozens of open content repositories currently in existence, both large and small. However, there is no macro site that provides an information clearinghouse for people to both learn about OER, as well as to create community around the sharing and use of OER. Additionally, there is no central vehicle for facilitating the use and re-use of existing OER materials across platforms and specific repositories. And perhaps even more importantly, for all intents and purposes, there is no system that allows the users of OER to vet the quality of these materials. Some system-specific review systems are in place, but they are specific to the content on a particular site.
>
> This project will create a user-driven open education resource portal, whose purpose is to stimulate the adoption, sharing, and learning about open education resources. Two ultimate outcomes of this project are to build community knowledge and awareness around the development and use of open education resources, and to stimulate use of high quality open education resources through the development of a set of quality vetting tools and processes that are both user-

driven as well as standardized. Therefore, this project will: 1) raise awareness about what open education resources are, 2) stimulate the use and adopting of open education resources, 3) develop a quality vetting process, and 4) build community knowledge around the development and use of open education resources as a way to build on and learn from others and create networks of support."

From ISKME's perspective, as researchers and librarians who have been working to create policy, practice, and tools in open education, can you briefly describe shifts that you have observed in the field over time?

When we first launched OER Commons, one of our earliest partners was a group of evolutionary biologists from Bioquest who were dedicated to supporting STEM education through curriculum development for high school students and professional development for teachers. Not surprisingly, as evolutionary biologists, they fully understood the concept of OER in terms of the importance of creating content that could evolve and be adapted over time. Through this work, we came to understand quite early on that information sharing alone was just one piece of the puzzle and that the most impactful work in OER was likely going to be the result of deliberate support for collaboration among the educators themselves. This is why we emphasized professional development as a key component of OER use in our early grants.

As we started to do presentations and demos to accompany the launch of OER Commons in 2007, two things stand out for me now in retrospect. First was a presentation we did at West Ed, when a teacher, towards the end of the Q&A, raised her hand and said, "This is the worst thing I've ever seen." I asked her why, and she replied, "I already take content from wherever I want for my students, now you are telling me I can only find it from this one library, OER Commons?" While it's true that 18 years later there are many more high-quality OER that teachers can adopt or adapt, what remains constant is that searching and finding exactly what an educator wants in that moment can pose a challenge, since context and subject matter are so distinct. The difference is that as the field of OER has grown, more educators are comfortable knowing that they can ask colleagues, or their librarian, among others in their fields. Also, what is different now is that educators are much more comfortable finding content that isn't exactly how they need it, but because of their understanding of licensing and remixing, they can modify it to suit their specific context. So overall, there is a much more dynamic approach to finding and adopting OER than there was, for example, by purchasing that one commercial textbook and using only a few chapters from it.

"Ultimately, the potential impact of open

education on improving access to education could be thought of within the context of leveraging data and information for the public good."

Another thing that stands out for me is that while there are various ways to rate and review content, the most significant predictor in studies of OER use as early as 2009, and even today, show that educators are more likely to use content that has been recommended from someone they know, and also if the resource contains metadata or other descriptive information about how it was actually used in the classroom. What became clear over time was that by both raising awareness and providing training around the how and why of OER, the professionalism of educators was leveling up as they applied their own lived experience, subject matter expertise, and know-how to the creation and adoption of content. This figured prominently into initial discussions of OER when it was first introduced.

The next big shift in the field was the push to develop sustainability models early on, which, from my perspective, took place at a time when the innovation of the practice was still very nascent. This meant that the drive to create a "marketplace" of OER necessary to accelerate the adoption of it was prioritized. It also meant that time and effort needed to deeply engage with educators to help them learn how to create, adapt, and adopt OER was outpaced by the rush of open content publishers trying to secure their market niches. Many influencers at the time believed that working with educators to provide professional development and training would simply not "scale," thus the push for a textbook replacement model took hold, in contrast to those of us, ISKME included, who believed that the promise of OER was a means to transform teaching and learning. While the resulting cost savings for students in having access to freely available content was absolutely critical in terms of legislation and policymaking, not to mention the indisputable research on the persistence and completion of students having content on the first day of class, it is interesting that, 20 years later, the field as a whole has in many ways returned back to the need to fully engage the "end-users" in the OER process, that is, the teachers and learners with a strong drive and determination for the transformation of pedagogy and learning.

“ . . . it is interesting that, 20 years later, the field as a whole has in many ways returned back to the need to fully engage the ‘end-users’ in the OER process, that is, the teachers and learners with a strong drive and determination for the transformation of pedagogy and learning.”

As you described previously, early in your academic career at Teachers College, Columbia University, you conducted research focused on applications of information technology and organizational learning, specifically related to student success in California community colleges. You then parlayed this work into the burgeoning OER field, where your research was instrumental in helping to shape what we were learning about the expansion of OER creation and adoption nationally, but also within the California Community College system. What did your research show? What was the value in doing such research, so early in the OER movement?

ISKME conducted one of the first studies on author use and reuse of OER, using data gathered between 2000-2005 from over 13,000 log files in Connexions (CNX), a content creation platform developed by Rice University (later to become OpenStax). The goal was to look at the role of collaboration on content creation, which was possible due to the fact that CNX tracked the number of authors that had contributed to any particular resource and each change that was made. This study found that as the author group size increased beyond one author user, the probability that users stayed engaged with the resource increased with it. The implication was that facilitating OER group authorship and collaboration was likely to be an important factor in use, reuse, and sustainability.

In 2006, ISKME partnered with Foothill-De Anza Community College district in a grant to develop the Community College Open Textbook Project (CCOT) to “explore

the possibility of creating high-quality, accessible and culturally relevant open textbooks that are freely available to use, modify, and reuse by community college students and faculty—in order to increase academic quality and reduce the cost of textbooks to make a community college education more affordable." ISKME conducted a feasibility study in 2008 with the Community College Consortium for Open Educational Resources (CCCOER), the Monterey Institute for Technology and Education (MITE), and Connexions, which engaged the expertise of educators, administrators, researchers, technology experts, and leaders from community colleges nationwide—from identifying and developing an open textbook, to promoting and facilitating its use, toward offering a model that other initiatives can draw upon. By the end of this grant, CCOT had secured buy-in to the open textbook model from community colleges throughout the U.S., developed an open textbook, Collaborative Statistics, and uploaded it to the CNX platform, and engaged teachers and students to pilot the open textbook. The study documented the implementation process of developing an open textbook, the faculty and student adoption and use of it, and the sustainability of the open textbook model going forward, creating one of the first frameworks for assessing and understanding options for financially sustaining the open textbook model.

OER Commons includes a hub for the California Community Colleges. What does that hub provide and how is it used and valuable?

As background, OER Commons was created as a digital public library for OER that is available for anyone with an internet connection, and is meant to be free forever. You do not need an account to search and discover OER, just like you can walk freely into a physical public library in your town and browse the shelves. The goal was to create a user-friendly space, curated by knowledgeable librarians, that was freely available to all. A visitor to the OER Commons library only requires an ID and password if they wish to create content through the authoring app, OpenAuthor, to add reviews to resources, or if they want to join a group, which provides a space for users to collaborate on resources together, or to organize material with others. As of this interview, there are over 3,000 groups created by users on OER Commons, and hundreds of California community college faculty and librarians who use OER Commons in these ways.

Additionally, there is a dedicated work space, or Hub, provided on OER Commons for the California Community Colleges (CCC), launched in 2019 with support from the Michelson 20 MM Foundation and project leadership from you, Barbara. Hubs are where a network of users can create and share collections, administer groups, and share news and events associated with a project or organization. The CCC Hub contains collections created by faculty in conjunction with the Academic Senate for

California Community Colleges Open Educational Resources Initiative (ASCCC OERI), as well as OER collections from groups such as BCCampus, CUNY, and OpenOregon, all in one central location. It also has group pages created for individual campuses, such as Skyline College. While most community colleges in California have their own instance of Canvas Commons, or another course management system, having content on OER Commons ensures that it is shared more broadly across the country and internationally, accessed by millions of OER Commons' users.

What do you think are the key factors that led to California playing such a key role in the Open Education landscape, culminating in California's historic investment of $115M in the California Zero Textbook Cost (ZTC) Grant Program?

There are many factors leading up to Governor Newsom's historic investment in the California ZTC grant project. From concerted efforts to seek out state legislators, proposals to the Board of Governors, and statewide and campus-led OER efforts to support the creation and adoption of OER, California, or should I say forward-thinking Californians, continue to innovate to improve access, persistence, and success of their 2.1 million community college students.

I've had the good fortune to work alongside maverick OER advocates in California, such as Hal Plotkin and Dr. Martha Kanter, providing research, thought partnership, and presentations to assist in getting legislation passed. The first time an OER-related project was legislated, I believe, was a bill signed into law by then-Governor Schwarzenegger in 2008. Although unfunded, it set the conditions for California Community Colleges to pilot the integration of OER into their curriculum, providing community college districts with training and instructional materials to establish open education resource centers.

Eight years later, we again successfully worked with legislators and advocates across the state to secure funding for the 2016 California Zero-Textbook-Cost (ZTC) pilot program, which was funded with $5 million from one-time Proposition 98 funds and signed by then-Governor Jerry Brown as part of the 2016–17 state budget. It enabled the California Community Colleges Chancellor's Office (CCCCO) to award competitive grants to twenty-five community colleges to research, organize, and pilot degree pathways. This highly successful initiative resulted in the creation of 37 different certificate and degree programs.

"Yet with all policymaking, there are wins and losses, and

certainly the most recent historic investment of $115M in the California ZTC Grant Program was a huge win."

What's important to note, however, is that over and over again, this work has involved pushing back on attempts by commercial publishers to undermine the millions of dollars California has invested in OER. Sometimes this has been through direct lobbying against these efforts, while other times it has been campaigns to soften or misconstrue language around the intention of open licensing. Yet with all policymaking, there are wins and losses, and certainly the most recent historic investment of $115M in the California ZTC Grant Program was a huge win. Even still, it was important to apply pressure to ensure that ZTC funding would not be used for automatic textbook billing, as well as to push for the ability of colleges to collaborate within similar ZTC pathways, as opposed to compete with them, which was due to the interpretation of language in the legislation around redundancy. But these are things to be expected in policymaking in general, which is why participation in policy always needs to be an ongoing process.

What prompted you to run for election to become a trustee of the San Mateo Community College District? As a Board of Trustees member, how does your involvement encourage or assist faculty in the creation and/or adoption of OER for their own classes?

I'd have to say that after what I consider the disappointing election results in 2016, there were several groups and organizations encouraging women to run for office. As a person who has always been active in politics, I began to feel a sense of duty to serve in public office, similar to jury duty. I think all Americans should consider running for office because you get a much keener perspective on not only how things work, but how they can be changed, even within small local elections. As I began contemplating serving in this way, and thought about city councils and school boards, I realized that serving in the community colleges was the most obvious choice. From my early days as an educator with a research appointment in the Community College Research Center at Teachers College, Columbia University, to my later involvement in research and policy work around open education in California, it just seemed so obvious in retrospect. That being said, campaigning against my opponent was a much more rigorous activity than I had anticipated. Between needing to fundraise over $65K for campaign costs and figuring out how to campaign remotely during COVID, it was

quite a learning experience.

While I came to this office with a great deal of community college know-how, my only experience on the governance side was as a researcher looking in, and I thought that it would be very useful to expand my knowledge and perspective in an area that I had a great deal of passion for. I have always been passionate about democratizing access to education and knew that even in San Mateo County, a relatively wealthy part of the state, there were many adults who did not have access to affordable high quality learning, and that there was still a great deal of work to be done in closing achievement gaps and helping to support students in fulfilling their academic and career pathways. Today, I sit on an otherwise all-male board, as the only educator, in my second 4-year term as community college trustee.

As trustees, we don't get involved in the day-to-day business of the college in terms of academic instruction or student services. Our role is focused on the fiduciary and legal aspects of running a three-campus district of 30,000 students and setting board policies related to governance. However, as trustees we can work with the administration to impact policy, which means there are opportunities to advocate at the state and district level around issues related to OER, such as having a districtwide policy on OER, weighing in on course marking and issues that impact incentives and adoption, asking questions about textbook costs for dual enrollment, commercial bookstore ownership, and more.

You created the innovative "Educating to Be Human" podcast series. One of your 2025 podcasts features Dr. Keith Curry, President of Compton College, a community college in Compton, California. Dr. Curry discusses the critical role community colleges play in creating a more inclusive and equitable system of education. Why did you start that podcast series? Can you explain why you chose to feature Dr. Curry? How does his role as President of a California Community College interact with ISKME?

We started the "Educating to Be Human" podcast two years ago in order to bring forward the voices of innovation and change in education that center on the belief that, as humans, we need to cultivate individuals who are active participants in our democracy and civilization. This was in recognition of the increasing societal and technical challenges in today's world and the pressing need to foster human-centered approaches that can meet these challenges. I chose to feature Dr. Curry on the podcast as someone who operates on the fundamental principle that shaping a more humane world requires empowering thoughtful inquiry and action in order to inspire meaningful change. He has been consistently addressing the real-life challenges that students face in community college, with the understanding that we can't separate issues of meeting basic needs (such as food, housing, free textbooks) from achieving

academic success, and finding job opportunities after completion of certificates and degrees. In addition, the professional development team at ISKME has worked with Dr. Curry and his OER Committee to help facilitate a strategic roadmap process for OER adoption and implementation throughout the College and also designed OER train-the-trainer sessions for their faculty and librarians.

Image description: Headshot of Dr. Lisa Petrides, smiling, in front of a decorative background.

Media Attributions

- Lisa Petrides Headshot

9

Hal Plotkin

Hal Plotkin is a leading international policy advisor in textbook affordability. It is our privilege to learn how he went from leaving high school before completion to becoming a leader in this field.

You left high school before graduating to support your mother and sister. You later enrolled at Foothill College where, almost two decades later, you were the first Foothill graduate to serve on the Board of Trustees for Foothill-De Anza Community College District (FHDA CCD). Please share your challenges with purchasing college textbooks while a student and how you mitigated those challenges.

I stopped attending Palo Alto High School in 11th grade to help support my single-parent family, which consisted of my often unemployed, severely depressed mother, my younger sister, Sam (who also left high school at about the same time and never returned), and myself. I was nonetheless granted a high school diploma at the end of my senior year by the principal of Palo Alto High School who awarded me the necessary minimum number of class credits for graduation in recognition of some of my employment activities after an intervention by a local member of the clergy who had also secured protected paid employment for my mother. I graduated from Foothill College nine years later, in 1985, with an A.A. degree in history, after attending Foothill College part-time for eight years while working full-time jobs that included gas station bathroom cleaner, food service worker, drug store clerk, and as an assistant drugstore store manager before I became a journalist, broadcaster, and writer. I was elected to the FHDA CCD board in 2003, 18 years after I had graduated from Foothill College. I was the first graduate of Foothill College ever elected to serve on its governing board of trustees.

The challenges I faced purchasing the textbooks required to attend Foothill College were significant, even scarring. While tuition costs at the time were very low and easily managed with available waivers, there was little to no financial help available to overcome the high cost of required textbooks. A single textbook would often cost as much as I would earn in an entire week or more. As such, the number of courses I could take each quarter was often limited based primarily on the costs of the required textbook(s). At the time, the only accommodation for high textbook costs was the deposit of a single reserve copy of each textbook that could only be read in the

campus library. There was also an emergency grant fund available in Foothill College's Office of Financial Aid that could be used to purchase textbooks, but the administrator overseeing that fund, the director of the office, rejected my application because of my religion. "I have to be very careful with the use of these very limited funds," he explained. "There are plenty of rich Jews," he said. "I suggest you go find a rich Jew."

"The challenges I faced purchasing the textbooks required to attend [college] were significant, even scarring. . . . A single textbook would often cost as much as I would earn in an entire week or more. As such, the number of courses I could take each quarter was often limited based primarily on the costs of the required textbook(s)."

On one occasion, toward the end of my years at Foothill College, I was so frustrated with my slow progress toward a degree that I stole a textbook from the Foothill College bookstore. It was an impetuous decision that haunted me for years. I did not plan to steal the book. It was a few days before the start of that quarter. I had faced so many delays. I picked up the book intending to purchase it and saw the price tag, which was much higher than I had anticipated, and more than I had in my account. I noticed that no one was looking. I was wearing a puffy blue ski jacket. I shoved the book in the left side of my jacket and quickly dashed out of the store.

I regarded theft as a grave moral failing. I remembered how I felt when my car was broken into and precious items taken and how I felt when my prized small collection of Kennedy half-dollars was stolen in a break-in at my family home. How dare thieves

simply take what did not belong to them? How dare they take what they did not earn, what I had worked so hard to earn? I despised those thieves. I also despised myself almost immediately for becoming one of them. At the same time, I was outraged even then by what seemed to be the unnecessarily high cost for that textbook. Why was the price so high? A few years later, I returned to the Foothill College bookstore and paid for the book I had stolen. I remember a surprised clerk asking the bookstore manager how to ring up such a sale. "That's a first for us," he said, accepting the cash.

The memory of that scarring episode, the time I became a thief, is one of the reasons that I started championing the creation of what I called "public domain textbooks" as a journalist when the Internet was just getting started, which I had covered as a journalist at the San Francisco Chronicle's SFGate.com website and for other publications and broadcasts. At the time, most people, especially in Silicon Valley, saw the Internet as a way to get rich quickly. But one of the first things I saw was an opportunity to relieve others from facing the same soul-crushing financial burdens that had led me to become a thief. It seemed like a no-brainer. Now that digital technologies and the Internet exist, my articles and essays asked, why don't our colleges and/or our government simply pay willing and interested academics for the content needed to create online textbooks that could be printed out as needed for the cost of ink and paper, and then share those resources freely with students? There were so many so-called leaders, politicians, college officials, and others, who often talked about the need to make higher education more accessible to the poor. Why were they not taking advantage of the obvious opportunity created by the Internet and digital technologies to drive down costs and create more opportunities?

It boggled my mind then as it does now that this obvious solution had not already been implemented. I was astonished that I was drawing attention to an issue, the way new Internet-based technologies could be used to help financially disadvantaged students, that was being almost totally ignored by those running the public education system. My articles and arguments did, however, come to the attention of Mike Smith, a former Undersecretary of Education in the administration of President Bill Clinton who at that time was running the education division of the William and Flora Hewlett Foundation, and his associate, Cathy Casserly, who were already working on similar issues and who asked for my ideas about how we might accelerate progress. Shortly after meeting them, Mike and Cathy offered me a series of contracts and grants to develop and implement our ideas and to assist them in reviewing their plans and the grant applications made to them, which led to a professional association with the Hewlett Foundation that lasted for roughly a decade until the foundation's education division's leadership was transferred into different hands.

When you served as an elected Board of Trustees member for FHDA CCD,

you led the Board to adopt the first public domain policy of any college in the country. How did that come about and why did you write that policy?

My 2003 campaign for the FHDA CCD board of trustees was led and supported almost entirely by the faculty at the FHDA CCD, who were eager to see a graduate of Foothill College serve on their governing board. I had gotten to know many members of the faculty at Foothill College during the 8 years I had attended part-time, some of whom had actually picked me up hitchhiking on my way to and from campus during periods when I did not own a working vehicle. In my 2003 campaign, I pledged to draft and gain approval for an official new FHDA board policy that identified the creation of "public domain learning materials" as an official purpose of the community college district. The new policy I proposed would also require the college district's top administrator, the FHDA chancellor, to provide the Board of Trustees with a periodic report, not less than annually, on how the college district was providing support to faculty members interested in creating, using, and/or improving freely available public domain learning materials (which later became known as "open educational resources"). After about two years of effort, the policy I proposed was officially enacted by the FHDA board in a unanimous vote with the support of the FHDA Academic Senate, the chancellor, the presidents of both Foothill Community College and De Anza Community Colleges, and the student government associations on both campuses. It was the first official policy of its type at any public or private institution of higher education anywhere in the world.

FHDA's new policy led the district to support your work, Barbara, as a De Anza Community College statistics professor. You were the first FHDA faculty member who offered to convert the proprietary textbook you had co-authored into an openly licensed textbook. Collaborative Statistics was the first fully articulated (accepted for use in credit-bearing community college courses) open textbook published by what became OpenStax, which started as a collaboration between Foothill-De Anza CCD and Rice University. These efforts were initially led at Rice by Joey King and Joel Thierstien working under the direction of the visionary Rice University CTO Richard Baraniuk and the late Professor of Engineering Sidney Burrus, who was a giant in our field and a significant personal mentor to me.

Very early in the Open Educational Resources (OER) movement, you met often with Drs. Marshall (Mike) Smith and Cathy Casserly, then at The William and Flora Hewlett Foundation and leaders in the OER movement. How did your interactions with them influence your future leadership roles locally, nationally, and internationally?

Mike and Cathy invited me to meet with them after reading some of my essays and articles which my late wife, Loren, had suggested I send them after she learned of

their interest and development of a then-new grant program to use digital technologies to make educational opportunities more widely available. Mike and Cathy were much more than an inspiration. We hit it off immediately and could finish each other's sentences during our first meeting. We also had come to know some of the same early leaders in the field who had contacted us independently and we almost immediately started brainstorming on ways we could accelerate our progress. When I returned home after our very first meeting there was a message waiting for me on my home answering machine from Cathy asking me to present them with an immediate proposal, that same week, for what became my first paid assignment with the Hewlett Foundation, which included working with them to develop an official definition of "open educational resources (OER)" which has since come to be known as the now widely used "Hewlett Foundation definition of OER." Mike and Cathy changed my life. Years later, after President Obama was first elected and before he took office, Mike Smith served as a senior member of the Obama transition team for the U.S. Department of Education where he recommended and supported the appointment of then FHDA Chancellor Martha Kanter, who had guided the passage of my proposed policy on "public domain learning materials" as President Obama's first Undersecretary of Education and who supported her decision to name me as her Senior Policy Advisor, and to put the Obama administration's Department of Education under our leadership in charge of expanding the efforts we had started at FHDA to support open education resources nationally, a plan President Obama initially called the "American Graduation Initiative."

What was your "ah-ha moment" in Open Education that compelled you to so passionately pursue the Open Movement?

Simply put, I could not understand why the power of the internet and digital technologies was not being used to reduce the economic burdens being unnecessarily placed on the shoulders of financially-disadvantaged students. I had come forward to work on this issue initially as a journalist not an educator, elected official, or a public servant. I was astonished that those who had those formal responsibilities were not already taking advantage of this new opportunity to help financially disadvantaged students. I kept asking myself "why has this responsibility fallen on me? Where are the people who are supposed to be in charge of this system? Why haven't they done this already?"

"Simply put, I could not understand why the power of the internet

and digital technologies was not being used to reduce the economic burdens being unnecessarily placed on the shoulders of financially-disadvantaged students."

Another big "ah-ha" moment came years later when I began to see some of the data that were coming in from the rigorous outcome studies that were being done to assess how the initial batches of OER were being used and whether it was in fact making a difference. I had started championing OER primarily because I wanted to reduce unnecessary costs imposed on financially disadvantaged students. But as the data started rolling in we began to notice some benefits I had not anticipated, namely, that not only were students saving money, they were also doing better in their classes than similar students who did not have access to OER, more of them were staying in college longer (known as "persistence") and they were graduating at higher rates. Later studies teased out some of the reasons for some of this, including the fact that many students who could not afford textbooks were trying to pass classes without ever buying or having access to the required textbooks which led to lower grades, less persistence, and more failure. That was a big ah-ha moment. Not only did OER cost less, it was actually better, in terms of the results generated, than comparable traditional high-cost textbooks. We were spending less money overall and getting better results. That is an ideal outcome for a new public policy, and we had the data to show we had accomplished it.

"Not only did OER cost less, it was actually better, in terms of the results generated, than comparable traditional high-cost textbooks. We

were spending less money overall and getting better results."

You served as the Senior Policy Adviser, Office of the Under Secretary, U.S. Department of Education, under President Obama. What was your role in requiring that all materials produced in the Trade Adjustment Assistance Community College and Career Training grants were required to be openly licensed? How did you convince your colleagues to include that requirement in the grant?

One could write a whole book about what it took to make this happen! It was an enormous struggle. It was also one of the most thrilling moments of my entire professional life and quite an undertaking. At first the top legal leadership in both the U.S. Department of Education and the U.S. Department of Labor, career federal lawyers who had previously served in the administration of President George Bush, insisted that it was illegal and unconstitutional to require that recipients of federal grants use a Creative Commons open license to grant free universal access to intellectual property created using federal funds. These pre-existing and powerful federal legal authorities maintained that such a requirement violated the "takings clause" of the U.S. Constitution, which is a traditional legal argument typically used by conservatives who oppose federal programs that impinge on property rights in any way. The legal authorities in both departments refused to sign off on our decision, as was required, to insert the requirement for open licenses into the grant application procedures for the federal Trade Adjustment Assistance Community College Career Training grant (TACCCT) program that we in the Obama administration had finally maneuvered through Congress as a substitute for President Obama's American Graduation Initiative, which the GOP Congress had defeated.

This struggle about whether it was legal to require open licenses in federal grants went on for months internally within the Obama administration and involved senior leaders in the White House, the Department of Education, the Department of Labor, and the White House Office of Science and Technology Policy (OSTP), with a written progress report sent directly to President Obama at the end of each week. At the end of this months-long struggle, there was still no agreement and there was only one day left to formally publish the grant application requirements in the U.S. Federal Register, without which the funding would automatically revert to the treasury. At that point, on the very last week before the deadline, the deputy director of OSTP, the magnificent Tom Kalil, working with his deputy, Kumar Garg, asked the White House

deputy legal counsel, Beth Novack, who had been a distinguished professor of law at New York University (NYU) before becoming the number two lawyer in the Obama White House, to act as my lawyer in the final negotiations with the lawyers in the U.S. Department of Labor and Education.

An emergency conference call was scheduled for 8:00 PM on the evening before the final deadline. All the senior officials were on the call as Ms. Novack, with whom I had met earlier that day, heard all the legal arguments opposing the policy I was trying to implement with White House support. Patiently, Ms. Novack explained why the lawyers from the Departments of Labor and Education were wrong and why the law actually supported the plans we had proposed. She cited several legal cases, relevant Office of Management and Budget circulars, and other pertinent laws and legal requirements. The conversation went on for more than two hours. Finally, the lawyer from the Department of Education thanked her for the information and indicated his willingness to sign off on the document, but the lawyer from the U.S. Department of Labor continued to refuse, at one point raising his voice and yelling at Ms. Novack. It was at that point—it was then past 10:00 PM, a moment I will always remember—that Ms. Novack calmly said, "On behalf of the President, I am directing the general counsel at the U.S. Department of Labor to stand down and sign off on this requirement. If you still have any objections, you may call my boss directly in the morning. I will be happy to arrange that call for you." There was silence at the other end of the phone.

The TAACCCT grant applications containing the open IP licensing requirements were published in the Federal Register the next day. That requirement has never been successfully challenged in any court and the use of that requirement has since spread to cover billions of dollars of grants from other federal agencies that support education, job training, scientific research, and other activities. Beth Novack is the hero of this particular story.

You have advised several foreign governments on adopting open policies. Can you discuss some of the benefits for California community college staff, faculty, and administrators of a global perspective on the field of Open Education?

We have barely, even now, begun to scratch the surface of what OER can accomplish internationally. We can now have cost-efficient educational exchanges across borders and cultures. We can use OER to help students participate in mass data gathering experiments that can create significant advances in virtually every science imaginable. When I visited Kyrgyzstan, a former Soviet socialist republic still under the domination of Putin's Russia, the former president thanked the U.S. for providing free access to the OER we had funded, which she said constituted the only learning

materials available in her country that were not laden with Russian propaganda. In South Africa, many of the poorly funded schools and job training programs open to indigent members of their population rely on OER created with the funds we provided and similar programs. In Europe, I served, after the end of the Obama

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administration, for more than four years as a consultant to the European Commission funded "D-Transform Program," which places OER at the center of its efforts to provide leadership training to the senior administrators of European colleges and universities working to increase access to public education and job training initiatives. More than twenty years after I first proposed a "public domain learning materials" policy for public higher education institutions, we are still at the beginning of this road, with many more opportunities to use modern digital technologies to increase access to high quality education, reduce income inequality, and lift more people out of poverty.

The Federal TAACCCT's $2 billion investment in Open Educational Resources (OER) grants helped open the doors to Zero Textbook Cost (ZTC) funding in California and save taxpayers' money by not having duplicate

projects funded and then hidden away. How did your federal role influence California funding?

During my service in the Obama administration, then California Lt. Governor Gavin Newsom visited the U.S. Department of Education to learn more about our efforts. It was supposed to be a short meeting. But then Lt. Governor Newsom stayed with us for nearly two hours, meeting in the office of Undersecretary Martha Kanter and showing great personal interest in our work. Years later, after Newsom was elected Governor of California, I worked closely with leaders in his Department of Finance, particularly with Ms. Lark Park, his senior advisor on higher education, to fashion the $115 million California state effort to create ZTC degrees in the California community college system that enables students to earn an AA/AS degree or certificate without having to purchase any textbooks. In making the funding announcement, Newsom said his goal was to end the "textbook racket."

Early in the Open Movement, you had a sponsored project at Creative Commons USA, the U.S. affiliate of Creative Commons. This was while you were a Trustee for FHDA CCD. What was your project and how did it influence your future work?

The Hewlett Foundation offered me a three-year grant after I left the Obama administration in 2014, after the federal $2 billion TAACCCT program, which enabled Creative Commons USA to create a new position for me as "senior open policy fellow," a position I held from 2014 to 2017. During this time, I was engaged in a public education campaign designed to illuminate the advantages of public policies that favor the use of open Intellectual Property licenses.

You have received much recognition for your leadership and innovation in the OER and Open Movement. In addition, you are a sought-after speaker in these areas. Can you share your thoughts on the importance of recognizing the contributions of professionals like yourself to our field?

I am grateful and humbled by the recognition I have received. The truth is that I found many allies along the way, many wonderful people all over the world who share the same goals and visions and who are working to create, use, and improve OER and implement related public policies. I think it is important for academics and others to realize that championing these initiatives is a wonderful way to gain the professional recognition and rewards that motivate many educators and public officials. In education and science, one often hears the words "publish or perish"—it is an admonition that has traditionally driven many careers. We are trying to layer a new imperative on that old saw—you might call it "share and thrive"—that illustrates how one can play a leadership role in virtually any field not by hoarding knowledge and limiting related opportunities but instead by using available tools and

"We are trying to layer a new imperative on that old saw [of publish or perish] – you might call it 'share and thrive' – that illustrates how one can play a leadership role in virtually any field not by hoarding knowledge and limiting related opportunities but instead by using available tools and technologies to widen access to education and opportunity."

technologies to widen access to education and opportunity. Share and thrive. As a society, we get what we lift up. If we lift up those who share, those who create structures for sharing, we will have more shared resources from which everyone can benefit. Each time I am recognized, I think and say the same thing: what you are really recognizing is not me personally, but instead the power of what is an ancient idea: we need each other and we are better off, all of us are better off, if we help each other. Modern technology provides us with an opportunity to do more to help each other and help the entire world, if we use it that way. The only thing missing is the leadership to make it happen.

What do you think are the key factors that led to California playing such a key role in the Open Education landscape, culminating in California's historic investment of $115M in the California Zero Textbook Cost (ZTC) Grant Program?

My colleague, former Hewlett Foundation open education director T.J. Bliss, deserves credit for greatly accelerating the movement toward ZTC degrees. TJ took notice of the progress toward offering ZTC degrees, which rely on OER to fully eliminate the cost of textbooks, that took place at Tidewater Community College in

Norfolk, Virginia, toward the end of the Obama administration. T.J. then sent the goal of expanding support for ZTC efforts nationally and set up the first Hewlett Foundation programs that funded those efforts by supporting the faculty members and schools doing or willing to do ZTC work. It was those efforts that helped us convince California's new Governor Newsom to set and fund the same ZTC goals for the California state community college system. I must confess that even I initially thought that goal, creating zero-textbook-cost (ZTC) degree programs that eliminated textbooks entirely, was too ambitious a goal. I had been fighting the battle one textbook at a time, one course at a time. But it was T.J. who convinced me we could set more ambitious targets. T.J. does not get enough credit for what he did but I try to mention him in all my talks and public appearances. He led us to extend our reach. I am forever grateful to him.

You have been a groundbreaking Open and Affordable Education advocate in California and beyond and hold a unique perspective from multiple points of view and organizations, from the institution to funders, to supporting non-profits. From this perspective, what is the significance of the California ZTC Grant Program for community colleges in the state, and also for Open Education in general?

ZTC programs do something very important that might not be obvious. I call them an "anti-humiliation machine"—because they promise financially disadvantaged students that they can enter a degree-granting program knowing ahead of time that they will not face textbook costs they can't afford. Many financially disadvantaged people have had enough humiliation. I know because I was one of them. In those positions, no one wants to enter into a situation that is sure to humiliate them. And that is what happens when you have to drop out of a program because you can't afford the books. With ZTC programs, students know ahead of time there will be no surprises. They know they can safely enter a degree-granting program without risking future cost-related humiliation. Treating people with dignity is a basic ingredient in helping people effectively. Everyone deserves to be treated with dignity and respect. ZTC programs get that job done.

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respect. ZTC programs get that job done."

What else would you like to share about your illustrious role leading the effort to saving students millions of dollars in textbook expenses and the open movement?

I am deeply gratified to have played a small role in helping people around the world alongside many wonderful colleagues in the field of open education. There is so much more we can do. There is so much more we must do.

Image description: Headshot of Hal Plotkin, smiling, in front of a background in nature with green leaves and red flowers.

Media Attributions

- Hal Plotkin

IV

Conclusion

Sowing the Seeds of a Global Movement: Stories from California Trailblazers of Open Education stands as a powerful testament to the origins and evolution of Open Education in California (and beyond). The interviews with key leaders trace the movement from its early philosophical roots—the fundamental idea of knowledge as a public good—to its crucial, practical application through initiatives like Zero Textbook Cost (ZTC) programs. This volume illuminates how dedication, collaboration, and a clear vision from a few individuals propelled the movement forward, underscoring the critical role played by philanthropic support, notably from the Michelson 20MM and Hewlett Foundations, and the foundational legal infrastructure provided by Creative Commons licenses.

Ultimately, the stories within this volume prove that large-scale, transformative change is sown and nurtured by the committed actions of individuals. The tireless efforts of these trailblazers have translated the belief in open knowledge into tangible benefits, ensuring equitable educational opportunities by reducing financial barriers for students, particularly within community colleges and underserved communities. Their work has fostered greater student success and persistence, while also promoting innovative pedagogical practices that empower learners and educators alike. It is this collective power—built on individual leadership, vision, and sustained advocacy—that transformed an idea into a global movement, compelling us all to recognize our own potential to shape the future of education.